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# Shepherd

UNIVERSITY

Supplement to the 2005-07 Catalog



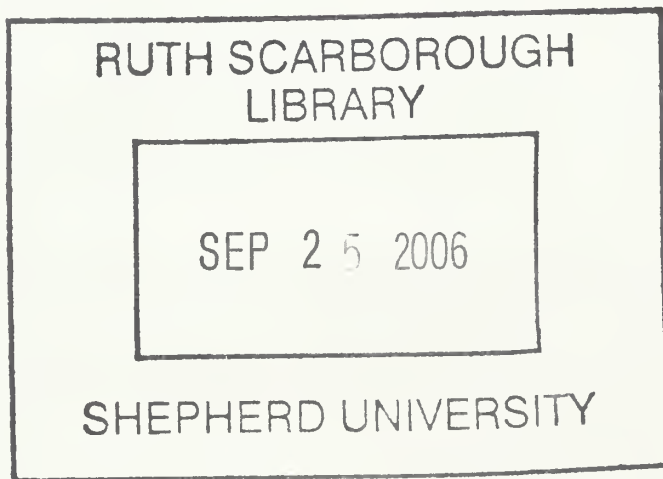


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# Shepherd

UNIVERSITY



## SHEPHERD UNIVERSITY CATALOG SUPPLEMENT 2005-07

Volume XLV

May 2006

This 2005-07 Shepherd University Catalog Supplement is for information purposes only and is not considered a binding contract between Shepherd University and students. Changes may apply to both present and prospective students. Although University officials are available to advise students, it is the student's responsibility to comply with University policies, including the requirements for degrees.

# ACADEMIC YEAR CALENDARS

## First Semester Fall 2006

8/17/06	Thu	New Freshmen/Transfer Orientation; Faculty Report for Fall Semester; Faculty Meetings
8/18/06	Fri	Orientation, Academic Advisement; Registration/Payment for New Freshmen, Transfers and Readmits
8/18/06	Fri	Add/Drop and Late Registration (Late Fee Applies) via RAIL Begins at 8 p.m. (All hours except 4-8 a.m.)
8/21/06	Mon	Classes Begin
8/21/06	Mon	Add/Drop and Late Registration (Late Fee Applies), via RAIL or at Ikenberry Hall, 9 a.m.-4 p.m.—Consult Advisor
8/25/06	Fri	Last Day to Add/Drop or Late Register via RAIL or at Ikenberry Hall, 9 a.m.-4 p.m.—Consult Advisor
9/1/06	Fri	Last Day to Change a Course from Credit to Pass/Fail Status
9/4/06	Mon	Labor Day—Holiday
9/8/06	Fri	Last Day to Change a Course from Credit to Audit Status
9/29/06	Fri	Last Day to Withdraw from First 8-weeks Class—See Advisor by Noon
10/6/06	Fri	Last Day to Apply for May 2007 Graduation (Registrar's Office)
10/9/06	Mon	First Day of Mid-term Exams; Second 8-weeks Classes Begin
10/13/06	Fri	Last Day of Mid-term Exams
10/16/06	Mon	Mid-term Grades Due 9 a.m. (paper)/12 Noon (Web); Second 8-weeks Classes Begin
10/18/06	Wed	Mid-Term Grades Available on RAIL (tentative)
11/1/06	Wed	First Day of Academic Advisement for Continuing Students for Spring 2007
11/10/06	Fri	Last Day to Withdraw from a Full Semester Class—See Advisor by Noon
11/13/06	Mon	First Day of Spring 2007 RAIL Registration for Continuing Students; 9 a.m.-4 p.m.
11/15/06	Wed	Last Day of Academic Advisement for Continuing Students for Spring 2007
11/19/06	Sun	First Day of Thanksgiving Recess
11/26/06	Sun	Last Day of Thanksgiving Recess
12/1/06	Fri	Last Day to Withdraw from Second 8-weeks Class—See Advisor by Noon
12/8/06	Fri	Last Day of Classes
12/11/06	Mon	First Day of Final Exams
12/15/06	Fri	Last Day of Final Exams
12/18/06	Mon	First Semester Grades Due 9 a.m. (paper)/12 Noon (Web)—End of First Semester
12/19/06	Tue	Grades will be available via RAIL (tentative)

## Second Semester Spring 2007

1/10/07	Wed	Faculty Report; Orientation, Academic Advisement, Registration/Payment for New Freshmen, Transfers, and Readmits
1/11/07	Thu	Classes Begin
1/11/07	Thu	Add/Drop and Late Registration (Late Fee Applies), via RAIL or at Ikenberry Hall, 9 a.m.-4 p.m.—Consult Advisor
1/15/07	Mon	Martin Luther King's Birthday—Holiday
1/18/07	Thu	Last Day to Add/Drop or Late Register via RAIL or at Ikenberry Hall, 9 a.m.-4 p.m.—Consult Advisor
1/25/07	Thu	Last Day to Change a Course from Credit to Pass/Fail Status
2/1/07	Thu	Last Day to Change a Course from Credit to Audit Status
2/23/07	Fri	Last Day to Withdraw from First 8-weeks Class—See Advisor by Noon
3/5/07	Mon	First Day of Mid-term Exams



3/9/07	Fri	Last Day of Mid-term Exams; Last Day to Apply for August and December 2007 Graduation (Registrar's Office)
3/12/07	Mon	Mid-term Grades Due—9 a.m. (paper)/12 Noon (Web); Second 8-weeks Classes Begin
3/16/07	Fri	Mid-term Grades Available on RAIL (tentative)
3/18/07	Sun	First Day of Spring Recess
3/25/07	Sun	Last Day of Spring Recess
4/2/07	Mon	First Day of Summer 2007 RAIL Registration for Continuing Students, 9 a.m.-4 p.m.
4/4/07	Wed	First Day of Academic Advisement for Continuing Students for Fall 2007
4/13/07	Fri	Last Day to Withdraw from a Full Semester Class—See Advisor by Noon
4/16/07	Mon	First Day of Fall 2007 RAIL Registration for Continuing Students, 9 a.m.-4 p.m.
4/18/07	Wed	Last Day of Academic Advisement for Continuing Students for Fall 2007
4/26/07	Thu	First Day of Spring Weekend Recess (If no snow days used)
4/27/07	Fri	Second Day of Spring Weekend Recess (If no snow days used)
5/1/07	Tues	Last Day to Withdraw from Second 8-weeks Class—See Advisor by Noon
5/2/07	Wed	McMurrin Scholars Convocation
5/4/07	Fri	Last Day of Classes
5/7/07	Mon	First Day of Final Exams
5/11/07	Fri	Last Day of Final Exams
5/14/07	Mon	Second Semester Grades Due 9 a.m. (paper)/12 Noon (Web)—End of Second Semester
5/15/07	Tue	Grades Will Be Available via RAIL (tentative)
5/19/07	Sat	Commencement
5/28/07	Mon	Memorial Day

#### First Semester Fall 2007

8/16/07	Thu	New Freshmen/Transfer Orientation; Faculty Report for Fall Semester; Faculty Meetings
8/17/07	Fri	Orientation, Academic Advisement; Registration/Payment for New Freshmen, Transfers and Readmits
8/17/07	Fri	Add/Drop and Late Registration (Late Fee Applies) via RAIL Begins at 8 p.m. (All hours except 4-8 a.m.)
8/20/07	Mon	Classes Begin
8/20/07	Mon	Add/Drop and Late Registration (Late Fee Applies), via RAIL or at Ikenberry Hall, 9 a.m.-4 p.m.—Consult Advisor
8/24/07	Fri	Last Day to Add/Drop or Late Register via RAIL or at Ikenberry Hall, 9 a.m.-4 p.m.—Consult Advisor
8/31/07	Fri	Last Day to Change a Course from Credit to Pass/Fail Status
9/3/07	Mon	Labor Day—Holiday
9/7/07	Fri	Last Day to Change a Course from Credit to Audit Status
9/28/07	Fri	Last Day to Withdraw from First 8-weeks Class—See Advisor by Noon
10/5/07	Fri	Last Day to Apply for May 2008 Graduation (Registrar's Office)
10/8/07	Mon	First Day of Mid-term Exams; Second 8-weeks Classes Begin
10/12/07	Fri	Last Day of Mid-Term Exams
10/15/07	Mon	Mid-term Grades Due—9 a.m. (paper)/12 Noon (Web)
10/16/07	Tue	Mid-term Grades Available on RAIL (tentative)
10/31/07	Wed	First Day of Academic Advisement for Continuing Students for Spring 2008
11/9/07	Fri	Last Day to Withdraw from a Full Semester Class—See Advisor by Noon
11/12/07	Mon	First Day of Spring 2008 RAIL Registration for Continuing Students; 9 a.m.-4 p.m.

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11/14/07	Wed	Last Day of Academic Advisement for Continuing Students for Spring 2008
11/16/07	Fri	Last Day to Withdraw from Second 8-weeks Class—See Advisor by Noon
11/18/07	Sun	First Day of Thanksgiving Recess
11/25/07	Sun	Last Day of Thanksgiving Recess
12/7/07	Fri	Last Day of Classes
12/10/07	Mon	First Day of Final Exams
12/14/07	Fri	Last Day of Final Exams
12/17/07	Mon	First Semester Grades Due 9 a.m.—End of First Semester
12/18/07	Tue	Grades will be available via RAIL (tentative)

### Second Semester Spring 2008

1/9/08	Wed	Faculty Report; Orientation, Academic Advisement, Registration/Payment for New Freshmen, Transfers, and Readmits
1/10/08	Thu	Classes Begin
1/10/08	Thu	Add/Drop and Late Registration (Late Fee Applies), via RAIL or at Ikenberry Hall, 9 a.m.-4 p.m.—Consult Advisor
1/14/08	Mon	Martin Luther King's Birthday—Holiday
1/17/08	Thu	Last Day to Add/Drop or Late Register via RAIL or at Ikenberry Hall, 9 a.m.-4 p.m.—Consult Advisor
1/24/08	Thu	Last Day to Change a Course from Credit to Pass/Fail Status
1/31/08	Thu	Last Day to Change a Course from Credit to Audit Status
2/22/08	Fri	Last Day to Withdraw from First 8-weeks Class—See Advisor by Noon
3/3/08	Mon	First Day of Mid-term Exams
3/7/08	Fri	Last Day of Mid-term Exams; Last Day to Apply for August and December 2008 Graduation (Registrar's Office)
3/10/08	Mon	Mid-term Grades Due—9 a.m. (paper)/12 Noon (Web); Second 8-weeks Classes Begin
3/14/08	Fri	Mid-term Grades Available on RAIL
3/16/08	Sun	First Day of Spring Recess
3/23/08	Sun	Last Day of Spring Recess
3/31/08	Mon	First Day of Summer 2008 RAIL Registration for Continuing Students, 9 a.m.-4 p.m.
4/2/08	Wed	First Day of Academic Advisement for Continuing Students for Fall 2008
4/4/08	Fri	Last Day to Withdraw from a Full Semester Class—See Advisor by Noon
4/7/08	Mon	First Day of Fall 2008 RAIL Registration for Continuing Students, 9 a.m.-4 p.m.
4/9/08	Wed	Last Day of Academic Advisement for Continuing Students for Fall 2008
4/24/08	Thu	First Day of Spring Weekend Recess (If no snow days used)
4/25/08	Fri	Second Day of Spring Weekend Recess (If no snow days used)
4/29/08	Tues	Last Day to Withdraw from Second 8-weeks Class—See Advisor by Noon
4/30/08	Wed	McMurrin Scholars Convocation
5/2/08	Fri	Last Day of Classes
5/5/08	Mon	First Day of Final Exams
5/9/08	Wed	Last Day of Final Exams
5/12/08	Mon	Second Semester Grades Due 9 a.m. (paper)/12 Noon (Web)—End of Second Semester
5/13/08	Tue	Grades will be Available via RAIL (tentative)
5/17/08	Sat	Commencement
5/26/08	Mon	Memorial Day

# ADMISSIONS

## General Transfer Admission

Applicants who have earned 15 credits or 24 quarter hours from another accredited college or university, have a minimum 2.0 grade point average (on a 4.0 point scale), and are in good standing at the institution last attended may apply as transfer students. They must submit the following documentation for consideration by the Admissions staff:

- Completed Undergraduate Application for admission;
- \$35 application fee;
- Official transcripts from each college/university previously attended\*;
- Student Personnel Record Form (if suspended or expelled for academic or disciplinary reasons).

\*Shepherd University does not, under any condition, disregard college or university courses taken or credits earned elsewhere. Failure to report enrollment at another college or university and failure to have transcripts sent to Shepherd are considered falsification of the admissions application form. Applicants found to be in violation of University policy are subject to disciplinary action, which may include expulsion.

## Credit Hours Transfer Policies

Students who transfer from a regionally-accredited junior or community college are allowed a maximum of 72 semester hours toward the 128 credit hour minimum for graduation from Shepherd University. In compliance with the West Virginia Higher Education Policy Commission, students who have completed more than 72 hours of course work may select the courses they wish to have evaluated as part of their semester hours of credit counted toward graduation. The total number of credit hours earned will be calculated in the student's overall grade point average. Credits from universities that do not have regional accreditation are assigned on the basis used by the state university in the state where the nonaccredited university is located.

Once enrolled at Shepherd University, a student must receive prior approval to enroll in and transfer any additional course work from another institution. (See Section V for details.)

# STUDENT LIFE

## Student Health Services

Health services are available to all undergraduate students at Shepherd University—full-time, part-time, resident, or commuter. The Student Health Center is located on the ground floor of Gardiner Hall on East Campus. The Student Health Center is directed and staffed by nurses, with registered nurses and an advanced practice registered nurse (NP) offering an integrated approach to address the physical and emotional well-being of students. Hours of operation are Monday through Friday, 8 a.m. to 4:30 p.m. Students are seen by appointment only, although urgent care is accommodated as needed, and walk-ins may be worked in if the daily schedule permits. The Student Health Center offers a self-care station with over-the-counter medication for self-care of minor ailments or injuries, and basic-level care for common complaints such as flu, sprains, strains, colds, seasonal allergies, and minor injuries. State-sponsored family planning services are also available. Emergency services, x-rays, and other advanced diagnostic services are not available.

Full-time and residential students must submit a completed health record prior to matriculation. A complete immunization record is required in accordance with West Virginia law. Immunization against bacterial meningitis is strongly recommended for all entering freshmen and those who will live in the residential halls for the first time. A physician's or religious leader's statement is required for those claiming exemption from state immunization requirements. A basic physical examination is also required. These requirements apply as well to students transferring to Shepherd University.



Expenses incurred by emergency or medical care outside Student Health Services basic care, such as lab work, x-rays, ambulance transport, or hospitalization, are the responsibility of the student. Health insurance is recommended but is neither required nor offered by Student Health Services or the University. In cases of severe illness, it is advisable that personal physicians treat students at home; Student Health Center staff do not make visits into the residence halls. Special health services are available to eligible veterans at the Veterans Administration Medical Center in Martinsburg.

## EXPENSES AND FINANCIAL ASSISTANCE

### Enrollment Fees Per Semester 2006-2007

#### West Virginia Students Enrolled in a 4-year Program

Hours Enrolled	Enrollment Fee	Hours Enrolled	Enrollment Fee
12 Hours or more (full-time)	2,174.00	6 Hours	1,062.00
11 Hours	1,947.00	5 Hours	885.00
10 Hours	1,770.00	4 Hours	708.00
9 Hours	1,593.00	3 Hours	531.00
8 Hours	1,416.00	2 Hours	354.00
7 Hours	1,239.00	1 Hour	177.00

#### Out-of-State Students Enrolled in a 4-year Program

12 Hours or more (full-time)	5,732.00	6 Hours	2,838.00
11 Hours	5,203.00	5 Hours	2,365.00
10 Hours	4,730.00	4 Hours	1,892.00
9 Hours	4,257.00	3 Hours	1,419.00
8 Hours	3,784.00	2 Hours	946.00
7 Hours	3,311.00	1 Hour	473.00

### Explanation as to Use of Enrollment Fees

	West Virginia Students (Full-Time Rate)	Out-of-State Students (Full-Time Rate)
Capital Fees: Restricted for statewide capital improvement purposes by West Virginia Statute.	\$302.00	\$777.00
Intercollegiate Athletic Fee: Restricted to defray expenses associated with the University's intercollegiate athletic program.	153.00	153.00
Intercollegiate Athletic Equity Fee: Restricted to defray expenses associated with the Institution's compliance with Title IX.	50.00	50.00
Student Activity Fee: Restricted to defray expenses associated with the University's student activity programs with recommendations from the Student Government Association.	36.00	36.00
Technology Fee: Restricted to defray expenses for the development of University technology.	66.00	66.00
Co-Curricular Fee: Utilized to defray expenses associated with organized educational activities related to instructional programs.	39.00	39.00



Recreation Fee: Provide comprehensive recreation program for general student body.	35.00	35.00
Student Union Fee: Restricted to defray building and other expenses associated with the Shepherd Student Center.	69.00	69.00
University Operation Fee: Unrestricted for general operating purposes.	1,398.00	4,481.00
Medical Fee: Restricted to defray expenses associated with the University's Health Center	26.00	26.00
	<hr/>	<hr/>
TOTAL	\$2,174.00	\$5,732.00

Special Fees

Admissions Application Fee (undergraduate) .....	\$35
Graduate Admissions Fee .....	40
Admissions Deposit (non-refundable).....	100
Art Studio Fee .....	30
Diploma Replacement .....	20
Graduation Fee .....	35
I.D. Card Replacement.....	25
Late Payment Fee .....	25
Late Registration Fee.....	25
Orientation Fee .....	75
Regents B.A. Degree Evaluation .....	300
Science Lab Fee .....	20
Special Examination (per credit hour) .....	25
Emergency Transcript.....	15
Transcript (after first) .....	5
Parking Fee .....	45
Music Lab Fee.....	30
M.A.T. Transcript Analysis Fee .....	20
CIS Lab Fee.....	25
Applied Music Fee per credit hour .....	306
Education Fee.....	30
Health, Physical Education, Recreation and Sports Fee .....	30
Nursing Lab Fee.....	30
Nursing Program Fee .....	50
R.B.A. Posting Fee (per credit hour) .....	10
Electronic Course Fee (per credit hour) .....	25
Return Check Handling Fee .....	10
Communication Course Fee .....	25
Family and Consumer Sciences Fee .....	25
Graduate Posting Fee (third party courses/credit hour).....	35

Room and Board

Payment

Room and board charges must be paid in full at the time of registration. Once a room has been occupied, the student is liable for rent for the entire semester or summer term. In accordance with the residence hall contract, no room rent will be refunded when a student withdraws from the University. Students who withdraw from campus after the first day of classes will have meal charges prorated, but no deduction will be made from room rental during the absence. Allow four to six

weeks for refunds following the date of withdrawal from the University. All room deposits and board refunds must be authorized by the director of residence life.

For new freshman, transfers, and continuing students, written notice of cancellation of room reservation must be received in Residence Life prior to the first day of classes of any given semester. Failure to meet this deadline will result in forfeiture of the room deposit. Charges continue to accrue until cancellation notice has been received and approved.

Room and Board Rates Regular Session 2006-07 (per semester)

Gardiner, Kenamond, Turner, Shaw, and Thatcher Halls (room)	\$1,729.00
Burkhart, Moler, Yost, Lurry, Martin, Miller, and Boteler Halls (room)	\$1,990.00
Birch and Maple Apartments	\$2,500.00
Birch and Maple Rooms 200-300	\$2,750.00
Board	\$1,499.00
Room Damage Deposit (Refundable)	\$100.00

Room Rates Summer Terms 2007 (per term)

Apartments (room only)	\$832.00
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Rates are subject to change. Food service is generally not available during summer session. Meals may be purchased on a casual basis in the Student Center.

Educational Costs Payable at Registration (per semester, 4-year degree)

	West Virginia Students (Full-Time Rate)	Out-of-State Students (Full-Time Rate)
Tuition and Fees	2,174.00	5,732.00
Room and Board*	3,489.00	3,489.00
Total	\$5,663.00	\$9,221.00

ACADEMIC INFORMATION

General Studies Curriculum

Shepherd University has established the following general studies program which is required for all bachelor's degrees except the Regents B.A. degree, which has a separate set of requirements found under that section of the *Catalog*. The courses listed would usually be taken during the student's first two years of University work and are designed to give the student a foundation in the humanities, life or physical sciences, mathematics, social sciences, and physical education. In addition, basic computer literacy is required including e-mail use, Internet use, electronic library research, and word processing skills. These courses and requirements should assist the student in developing the ability to synthesize knowledge, both past and contemporary, to develop values, attitudes, and traits associated with an educated person in the modern world, and to provide the basis for a liberal arts education. Courses required in general studies may be cross-counted if also required in either a student's major or minor. Cross-counting of courses is not allowed between majors and minors. For additional information, students should contact their advisor or the registrar. A total of 47 semester hours of course work is required as follows:

HUMANITIES—19 semester hours

MUSC 111	Introduction to Music (waived for music major and minor) .....	2
ART 103	Introduction to Visual Arts OR .....	2
ART 104	Introduction to Visual Arts (required for art majors) .....	3

ENGL 101*	Written English AND .....	3
ENGL 102	Writing for the Arts and Humanities OR	
ENGL 103	Writing for the Social Sciences OR	
ENGL 104	Science and Technical Writing.....	3
ENGL 204	Survey of American Literature .....	3
ENGL 208	Survey of World Literature I OR	
ENGL 209	Survey of World Literature II .....	3
COMM 202	Fundamentals of Speech .....	3
*Students who score below 18 on the English section of the ACT (or 450 on the SAT Verbal test) must enroll in ENGL 100A and ENGL 100B in place of ENGL 101. For further information, see Academic Support Services in Section V—Academic Information and the course listings in Section VII—Courses of Instruction.		
LIFE OR PHYSICAL SCIENCES—8 semester hours *		
Students will choose one set of courses listed below:		
BIOL 101, 102	General Biological Science .....	8
BIOL 208, 209	Plants as Organisms and Animals as Organisms .....	8
CHEM 101, 101L, 102, 102L	Chemistry in Society I and II.....	8
CHEM 120, 120L, 122, 122L	College Chemistry I and II .....	8
CHEM 207, 207L, 209, 209L	General Chemistry I and II.....	8
GSCI 101, 102	Astronomy I and II .....	8
GSCI 103, 104	General Physical Science I and II.....	8
PHYS 201, 201L, 202, 202L	College Physics I and II.....	8
PHYS 221, 221L, 222, 222L	General Physics I and II .....	8
MATHEMATICS—3 semester hours		
MATH 101**	Fundamentals of Mathematics OR .....	3
MATH 105	Algebra OR .....	3
MATH 108	Precalculus OR.....	3
MATH 154	Finite Mathematics OR.....	3
MATH 205	Calculus with Applications OR.....	4
MATH 314	Statistics .....	3
**Students who score below 19 on the Mathematics section of the ACT (or 460 on the SAT Quantitative test) must enroll in MATH 101A and MATH 101B. For further information, see Academic Support Services in Section V—Academic Instruction and the course listings in Section VII—Courses of Instruction.		
SOCIAL SCIENCES—15 semester hours		
ECON 123	Contemporary Economics OR	
ECON 205	Principles of Macroeconomics** .....	3
HIST 100	History of Civilization: Asian Traditions OR	
HIST 101	History of Civilization: The Ancient and Medieval Worlds OR	
HIST 102	History of Civilization: Change and Global Connections to the Early Modern World OR	
HIST 103	History of Western Civilization: The Modern World .....	6
	(students will choose 2 of 4 listed but may not satisfy the requirement with both HIST 100 and HIST 101)	
PSCI 100	Politics and Government OR	
PSCI 101	American Federal Government .....	3
SOCI 203	General Sociology .....	3



PHYSICAL EDUCATION—2 semester hours	
GSPE 210	Fitness for Life..... 2
COMPUTER LITERACY REQUIREMENT..... See advisor	
FOREIGN LANGUAGE—12 semester hours (required only for B.A. programs, except education).	

Students in the B.A. program (not including education) are required to complete 12 semester hours in the same foreign language, except music students whose requirements must be approved by the chairs of the Music and English and Modern Languages departments. Two years of German or French or both are recommended for students who anticipate going to graduate or professional school. The foreign language requirement for the B.A. degree can be satisfied in any of the following ways:

1. By successfully passing the University Foreign Language Placement Test.  
Beginning in the fall semester 1990, all students who have had course work in a foreign language and who wish to fulfill the foreign language requirement for the B.A. degree will take a placement test to determine their competency in that language. Placement tests in French, German, and Spanish will be administered by a member of the foreign language faculty during each preregistration period of the academic year. Performance on placement tests will be evaluated by a member of the foreign language faculty who, with the approval of the chair of the Department of English and Modern Languages, will determine the course level at which the student must begin his or her language study at Shepherd University.

A strong performance on the Foreign Language Placement Test may entitle the student to waive three, six, nine, or twelve credit hours, corresponding to one, two, three, or four semesters of foreign language study at Shepherd University. A student receives no credit for waived courses. Permission to retake a Foreign Language Placement Test rests with the chair of the Department of English and Modern Languages.

2. By receiving advanced placement credit for foreign language examinations.  
A score of four on the advanced placement tests in French, German, or Spanish entitles a student to three hours credit in the same language, while a score of five entitles a student to six hours credit. No credit will be awarded for scores of three, two, or one.

3. By successfully completing CLEP tests in French, German, or Spanish.  
For the University's policy on taking CLEP tests, see Section II, Admissions.

\*Since major fields of study may have specific requirements for mathematics or science courses, students should consult their academic advisor in selecting these courses.

\*\*Students majoring in accounting, business administration, economics, environmental studies, and students pursuing a teaching field in social studies (5-12) must take ECON 205. Students with a minor in business administration or economics must take ECON 205. Students cannot receive credit for ECON 123 after completing ECON 205 and ECON 206.

## Academic Support Center

The Academic Support Center, headquartered in Knutti Hall 114, offers a variety of course work and services to assist students in achieving academic success at Shepherd. The responsibilities of this office include the following: 1) placement testing, 2) advising, 3) directing of stretch-model classes in writing and mathematics, 4) tutoring, and 5) the Writing Center.

Students seeking placement into university writing and mathematics classes can arrange to take the ASSET, ACCUPLACER, or Residual ACT placement tests. Students will receive advice on placement into appropriate classes at the conclusion of testing. Students returning to campus after academic suspension receive advising concerning a variety of policies and programs that Shepherd offers to help them boost their grade point averages. Students who do not meet the state requirement for placement in writing and/or mathematics enroll in stretch-model classes—ENGL 100A, ENGL 100B, MATH 101A, and MATH 101B—which are directed by this office. Students who wish to work with peer tutors from a variety of disciplines can make an appointment by coming to Knutti 114 and viewing the tutors' schedule books. Tutoring is free of charge. Students interested



in being a peer tutor need to fill out an application, maintain a GPA of 3.0 or higher in the subject that they tutor, and need a recommendation from a faculty member. Students who need help with writing can also visit the Writing Center, another service housed in Knutti 114, which is staffed by tutors who have additional training in composition theory and who also offer online writing tutoring.

# PROGRAMS OF STUDY

## Curriculum for a Teaching Field in Art, PreK-Adult

A student who wishes to earn a bachelor of arts in art education takes University required general studies courses (47 hours), fine arts core (12 hours), studio art and art theory (21 hours), methods and theory of teaching art (9 hours), education professional studies courses (31 hours), and electives to total 128 semester hours minimum. The major, outlined below, consists of studio courses, studio and art theory, and methods and theory of teaching art courses.

Note that art education majors are encouraged to take ART 104 Introduction to Visual Arts (for art majors, 3 credits), over ART 103 Introduction to Visual Arts (for non-majors, 2 credits). Students who enroll in ART 104 will take a total of 129 credits, while students who enroll in ART 103 will complete 128 credits on graduation.

Total semester hours required .....	52
Fine arts core requirements .....	45
ART 115                      Drawing I .....	3
ART 215                      Drawing II .....	3
ART 140                      Visual Thinking Skills I.....	3
ART 170                      Visual Thinking Skills II.....	3
ART 203                      Survey History of Western Art .....	3
ART 204                      Contemporary Art .....	3
ART 230                      Painting I .....	3
ART 250                      Sculpture I .....	3
ART 361                      Printmaking II .....	3
ART 403                      Art Criticism and Aesthetics .....	3
GRDS 200                      Graphic Design I.....	3
PHOT 281                      Black and White Photography I .....	3
Studio concentration in one area .....	9
Methods and theory of teaching art requirements .....	7
ARED 180                      Inclusive Approaches to Art Education .....	3
ARED 345                      Curriculum and Instruction in Art Education .....	4
See professional education course listings under Education: Professional Studies Core for Secondary Education (31 hours required). Special Methods of Teaching Art is EDUC 427.	

## Curriculum for a Minor in Graphic Design

Total hours required.....	24
Total design courses .....	18
ART 140                      Visual Thinking Skills I.....	3
ART 115                      Drawing I .....	3
GRDS 200                      Graphic Design I.....	3
GRDS 300                      Typography I .....	3
GRDS 320                      Digital Studio I .....	3
GRDS 340                      Graphic Design II.....	3
Select 6 hours from the following .....	6

GRDS 360	Digital Studio II .....	3
GRDS 380	History of Graphic Design .....	3
GRDS 410	Typography II .....	3

Curriculum for a Comprehensive Major in Biology—  
Ecological Science Concentration

The curriculum enables the student to attain a broad understanding of the physical and life sciences. The comprehensive program provides a fundamental understanding of science and encourages the development of critical thinking and an attitude of inquiry. Program flexibility allows for concentrations within the areas of organismic and ecological sciences to provide the needed breadth and depth of knowledge required for specific post-graduate education and employment.

Total hours required.....	128-130
General studies (other than science and mathematics).....	36
Science core.....	45-46
BIOL 208                      Plants as Organisms.....	4
BIOL 209, 209L            Animals as Organisms and Lab.....	4
CHEM 207, 207L           General Chemistry and Lab .....	4
CHEM 209, 209L           General Chemistry and Lab .....	4
CHEM 325                   Computers in Science.....	3
PHYS 201, 201L           College Physics and Lab AND	
PHYS 202, 202L          College Physics and Lab.....	8
MATH 205                   Calculus with Applications OR.....	4
MATH 314                  Statistics.....	3
ENVS 342                   Limnology .....	4
BIOL 301                   Evolution and Lab .....	4
BIOL 394                   Principles of Biological Research.....	3
BIOL 420                   General Ecology.....	4
Choose one of the following courses .....	4
BIOL 332                   Comparative Anatomy.....	4
BIOL 406                   Developmental Biology .....	4
BIOL 412                   Comparative Animal Physiology.....	4
Choose two of the following courses.....	6-8
BIOL 315                   Advanced Plant Biology .....	3
BIOL 324                   Plant Taxonomy I AND.....	2
BIOL 325                   Plant Taxonomy II .....	1
ENVS 422                   Stream Ecology .....	4
Choose three of the following courses .....	11-12
BIOL 313                   Invertebrate Natural History .....	4
ENVS 343                   Aquatic Entomology .....	4
ENVS 344                   Ichthyology.....	4
BIOL 411                   Animal Behavior .....	3
Additional upper division electives* .....	26-28
BIOL any 300 or above except BIOL 350 .....	8
CHEM 300 or above.....	8
Electives .....	10-12

\* Students considering pursuing advanced degrees should consider taking the following courses as electives: BIOL 305, 344, 394; CHEM 315, 315L, 316, 316L, 329, 330.

Curriculum for a Minor in Biology

Option I. Traditional Track

Specific general studies requirements

CHEM 207, 207L	General Chemistry and Lab .....	4
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CHEM 209, 209L	General Chemistry and Lab .....	4
Total hours required .....		24
Required biology courses .....		20
BIOL 208	Plants as Organisms .....	4
BIOL 209	Animals as Organisms .....	4
BIOL 305	Cell Biology .....	4
Choose two of the following .....		8
BIOL 301	Evolution and Lab .....	4
BIOL 406	Developmental Biology .....	4
BIOL 420	General Ecology .....	4
Elective biology courses .....		4
BIOL 302	Microbiology .....	4
BIOL 313	Invertebrate Natural History .....	4
BIOL 315	Advanced Plant Biology .....	3
BIOL 324	Plant Taxonomy I Fall Flora .....	2
BIOL 325	Plant Taxonomy II Spring Flora .....	1
BIOL 332	Comparative Anatomy .....	4
BIOL 344	Genetics .....	4
BIOL 404	Immunology .....	4
BIOL 406	Developmental Biology .....	4
BIOL 411	Animal Behavior .....	3
BIOL 412	Comparative Animal Physiology .....	3
BIOL 416	Molecular Biology .....	4
BIOL 418	Virology.....	4
BIOL 420	General Ecology .....	4

Curriculum for a Minor in Marketing

Total hours required.....		21
Required course .....		3
BADM 340	Marketing.....	3
Elective courses .....		18
BADM 150	Introduction to Business .....	3
BADM 312	Business Law I .....	3
BADM 350	Retailing .....	3
BADM 365	Promotional Strategy .....	3
BADM 375	Strategic Marketing .....	3
BADM 395	Consumer Behavior .....	3
BADM 405	Marketing Research.....	3
BADM 406	Professional Selling and Applied Business .....	3

NOTE: 45 hours of upper division credits are required for graduation.

Curriculum for a Comprehensive Major in Computer and Information Sciences

This comprehensive program provides students with the concepts and skills necessary to develop and manage state-of-the-art computer systems. The interdisciplinary nature of the program reflects the importance of computer and information sciences in virtually every kind of organization. Graduates of the program will be prepared to apply their knowledge professionally and to pursue graduate training. Students wishing to pursue a double major in computer science and mathematics can refer to the department Web site ([www.shepherd.edu/university/cis\\_math/](http://www.shepherd.edu/university/cis_math/)) for curriculum requirements.

Total hours required (including free electives) .....		128
Specific general studies requirements		
MATH 154	Finite Mathematics .....	3



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Math requirements for all concentrations.....	10
MATH 254            Discrete Mathematics .....	3
MATH 205*        Calculus With Applications .....	4
MATH 314        Statistics.....	3
*CS concentration must take MATH 207 instead of MATH 205	
Core requirements* .....	33
MATH 100        Freshman Seminar .....	1
CIS 102        Computer Literacy and Microcomputer Applications .....	3
CIS 104        Introduction to Computer and Information Sciences .....	3
CIS 211        Computer Language Concepts .....	4
CIS 234        Introduction to Networking.....	3
CIS 314        Advanced Computer Language Concepts.....	4
CIS 321        Data and File Structures.....	4
CIS 386        Computer Organization.....	4
CIS 388        Database Management Systems .....	4
CIS 390        Operating Systems .....	3
* Must have a C average in core requirements	
Computer programming and information systems (CPIS) concentration .....	36
Required business and mathematics courses.....	12
ACCT 201        Introductory Accounting I .....	3
BADM 310        Principles of Management.....	3
BADM 345        Business Communications.....	3
MATH 354        Operation Research .....	3
Required CIS courses .....	15
CIS 287        Systems Analysis and Design.....	3
CIS 302        Windows Programming .....	3
CIS 331        Programming Languages.....	3
CIS 487        Software Engineering.....	3
CIS 418        Management Information System .....	3
Required electives.....	9
Any CIS course numbered CIS 300 or above	
Computer science (CS) concentration .....	34
Required mathematics courses .....	7
MATH 208        Calculus II .....	4
MATH 307        Introduction to Linear Algebra .....	3
Required CIS courses .....	12
CIS 331        Programming Languages.....	3
CIS 421        Computer Architecture .....	3
CIS 431        Algorithms and Data Structures.....	3
CIS 487        Software Engineering.....	3
Required electives.....	15
Any CIS course numbered CIS 300 or above	
Networking and data communications (NDC) concentration .....	34-35
Required CIS courses .....	22-23
CIS 287        Systems Analysis and Design.....	3
CIS 418        Management Information Systems OR .....	3
ENGR 305        Logic Design and Lab .....	4
CIS 419        Data Communications and Local Area Networks.....	3
CIS 421        Computer Architecture .....	3



CIS 434	Inter-Intra Networking .....	3
CIS 423	Server Operating Systems.....	3
CIS 486	Network Security.....	4
Required electives.....		12
Any CIS course numbered 300 or above.		

Curriculum for a Major in Elementary Education

Specific general studies requirements

GSCI 103, 104	General Physical Science I and II.....	8
MATH 105	Algebra .....	3

Professional Studies Core for Elementary Education

Hours required .....		42
EDUC 150	Seminar in Education.....	1
EDUC 200	Foundations of Education .....	3
EDUC 320	Social and Psychological Conditions of Learning .....	5
EDUC 360	Survey of Exceptional Children.....	3
EDUC 351	Integrated Reading and Language Arts I.....	5
EDUC 352	Integrated Math, Science, and Social Studies I .....	4
EDUC 353	Integrated Reading and Language Arts II.....	4
EDUC 354	Integrated Math, Science, and Social Studies II .....	5
EDUC 400	Inclusion in the Regular Classroom .....	3
EDUC 450	Student Teaching K-6.....	9

Specialty Studies for Elementary Education K-6

Hours required .....		37
MUSC 102	Fundamentals of Music Education.....	2
MUSC 226	Classroom Music Education .....	2
ARED 325	Aesthetic Inquiry.....	3
HLTH 310	Health and Physical Education for Elementary Educators .....	4
HIST 201	History of the United States to 1865 OR	
HIST 202	History of the United States, 1865 to Present.....	3
HIST 309	West Virginia and the Appalachian Region .....	3
GEOG 101	Principles of World Geography .....	3
BIOL 100	Life Science for Elementary Teachers .....	4
CHEM 100	Chemical Science .....	3
CHEM 100L	Chemical Science Laboratory.....	1
MATH 102	Math for Elementary Teachers.....	3
MATH 200	Geometry and Measurement.....	3
MATH 300	Math Methods for Elementary Teachers .....	3

**Electives:** Students are encouraged to select upper division courses for electives. The variety of options for courses can be discussed with an advisor.

**Other Requirements:** The Department of Education has the responsibility for both the professional studies and specialty studies components of the elementary education specialization, so the student’s advisor will be from this department. Students should consult the elementary education specialization handbook for the most up-to-date policies, procedures, and requirements for this specialization.

**Contact Person:** Dr. Doug Kennard, Knutti Hall 101D 304/876-5330, or Department of Education, Knutti Hall 108, 304/876-5305.

Specialty Studies for Early Education PreK-K

Students who are especially interested in education in nursery schools, day care centers, or at the kindergarten level may wish to pursue this specialization.

Hours required .....	49
MUSC 102	Fundamentals of Music Education..... 2
MUSC 226	Classroom Music Education ..... 2
ARED 325	Aesthetic Inquiry..... 3
HLTH 310	Health and Physical Education for Elementary Educators .... 4
HIST 201	History of the United States to 1865 OR
HIST 202	History of the United States, 1865 to Present..... 3
HIST 309	West Virginia and the Appalachian Region ..... 3
GEOG 101	Principles of World Geography ..... 3
BIOL 100	Life Science for Elementary Teachers ..... 4
CHEM 100, 100L	Chemical Science and Lab..... 4
MATH 300	Math Methods for Elementary Teachers ..... 3
MATH 102	Math for Elementary Teachers..... 3
MATH 200	Geometry and Measurement..... 3
EDUC 314	Foundations of Early Education ..... 3
EDUC 334	Instructional Strategies in Early Education ..... 3
EDUC 336	Clinical Experiences in Early Education ..... 3
FACS 304	Child Development..... 3

EDUC 314, 334, and 336 are offered every third semester in the above sequence. The sequence begins with EDUC 314 in fall 2004 and again in spring 2006. Students should plan accordingly in order to follow this sequence.

In addition to these courses, two additional courses are required: GSCI 103 and GSCI 104. The last two courses fulfill general studies requirements in science. MATH 102 and 200 are prerequisites for MATH 300.

Electives: Students are encouraged to select upper division courses for electives. The variety of options for courses can be discussed with an advisor

Other Requirements: The Department of Education has the responsibility for both the professional studies and specialty studies components of the elementary education specialization, so the student’s advisor will be from this department. Students should consult the elementary education specialization handbook for the most up-to-date policies, procedures, and requirements for this specialization.

Contact Person: c. lynne hannah, Knutti Hall 109, 304/876-5279, or Department of Education, Knutti Hall 108, 304/876-5305.

Middle School Education

The middle school certification includes 5-9 grade ranges. The required courses in professional studies are listed below. See individual specialization areas for specialty curriculum. Students who want middle school certification must complete two middle school specializations or one middle school specialization AND either the elementary education multi-subjects K-6 specialization or one secondary education specialization.

Professional Studies Core for Middle School Education

Hours required .....	36-37
EDUC 150	Seminar in Education..... 1
EDUC 200	Foundations of Education..... 3
EDUC 320	Social and Psychological Conditions of Learning..... 5
EDUC 360	Survey of Exceptional Children..... 3
EDUC 319	Middle School Curriculum OR ..... 3
EDUC 370	Creating Learning Environments ..... 4

EDUC 4XX	Special Methods (one for each 5-9 specialization).....	6
EDUC 443	Reading in the Content Areas .....	3
EDUC 400	Inclusion in the Regular Classroom .....	3
EDUC 453	Student Teaching, Grades 5-9 .....	9
<b>Contact Person:</b> Dr. Doug Kennard, Knutti Hall 101D, 304/876-5330 or Department of Education, Knutti Hall 106, 304/876-5305.		

Secondary Education

The secondary certification includes K-Adult, 5-9, 5-Adult, or 9-Adult grade ranges. The required courses in professional studies are listed below. See individual specialization areas for specialty curriculum.

Professional Studies Core for Secondary Education

Hours required .....		34-37**
EDUC 150	Seminar in Education.....	1
EDUC 200	Foundations of Education .....	3
EDUC 320	Social and Psychological Conditions of Learning .....	5
EDUC 360	Survey of Exceptional Children OR	
ARED 180	Inclusive Approaches to Art Education (art education majors only) OR	
PHED 401	Teaching Adaptive Physical Education	
	(physical education majors only).....	3
EDUC 370	Creating Learning Environments .....	4
EDUC 4XX	Special Methods.....	3-6*
EDUC 400	Inclusion in the Regular Classroom .....	3
EDUC 443	Reading in the Content Areas .....	3
EDUC 45X	Student Teaching .....	9

\* Family and consumer sciences education requires 6 hours.  
\*\* Art education and physical education will have 31 hours because of the substitution of their special education courses for EDUC 360.  
See each specialization for specific course numbers and titles.

Curriculum for a Teaching Field in English Education 5-Adult

In addition to the course work required for the specialization, all prospective student teachers must make a satisfactory grade on the English Competency Exam and participate in at least TWO laboratory activities in language arts—writing for a University publication (newspaper, literary magazine), taking part in forensic activities, taking part in theatrical activities, working for the University radio station, being an English tutor, working in the University Writing Center, taking an English practicum course, or participating in some other activity approved in advance by the specialization coordinator. One of these activities must be tutoring in the University Writing Center.

Total hours required for a teaching field .....		43*
See course listings under Education for professional courses.		
Required courses .....		31
ENGL 307	Teaching Reading and Adolescent Literature .....	3
ENGL 300	Greek Mythology .....	3
ENGL 310	Survey of British Literature I.....	3
ENGL 311	Survey of British Literature II.....	3
ENGL 355	American Ethnic Literature.....	3
ENGL 360	Literature and the Sexes OR	
ENGL 366	Women in the Arts and Literature.....	3
ENGL 370	Structure and Evolution of English .....	3
ENGL 377	Peer Tutoring and Composition Theory .....	3
ENGL 421	Shakespeare .....	3



ENGL 486	English Education Capstone Presentation .....	1
ENGL 356	Appalachian Culture OR	
ENGL 371	Introduction to Creative Writing OR	
ENGL 373	Creative Writing OR	
ENGL	Additional English Elective .....	3
Electives .....		12

Of the 12 remaining hours (four elective courses) a minimum of three hours (one course) MUST come from EACH period grouping listed below:

Ancient/Medieval/Renaissance:

ENGL 302	Bible as Literature.....	3
ENGL 315	Medieval Literature .....	3
ENGL 316	Medieval Drama .....	3
ENGL 320	Renaissance Prose and Poetry .....	3
ENGL 321	Renaissance Drama .....	3
ENGL 322	Hamlet in Context .....	3
ENGL 418	Studies in Chaucer and Milton.....	3

Restoration/Eighteenth Century:

ENGL 330	Restoration and Eighteenth-Century Literature .....	3
ENGL 331	Restoration/Eighteenth-Century Drama.....	3
ENGL 332	**British Novel.....	3
ENGL 333	Satire .....	3
ENGL 360	Literature and the Sexes.....	3

Nineteenth Century:

ENGL 332	**British Novel .....	3
ENGL 340	British Romantic Literature .....	3
ENGL 341	Nineteenth-Century British Literature (1837-1900) .....	3
ENGL 346	**American Fiction .....	3
ENGL 347	**American Poetry .....	3
ENGL 445	Studies in American Literature .....	3
ENGL 360	**Literature and the Sexes.....	3

Modern:

ENGL 346	**American Fiction .....	3
ENGL 347	**American Poetry .....	3
ENGL 357	Contemporary American Poetry .....	3
ENGL 361	Short Story.....	3
ENGL 362	Modern Novel .....	3
ENGL 363	Modern Dramatic Literature .....	3
ENGL 365	Contemporary Literature .....	3

\*This total of 43 hours is in addition to the 12 hours of general studies requirements in English.  
\*\*Courses designated with a double asterisk (\*\*) cover more than one period but may be taken to satisfy only ONE period requirement.

See professional education course listings under Education: Professional Studies Course for Secondary Education (34 hours required). Special Methods of Teaching English is EDUC 421.

Contact Person: Dr. Sylvia Shurbutt, Knutti Hall 223, 304/876-5207, sshurbut@shepherd.edu.

Curriculum for a Major in History

Specific general studies requirement:

PSCI 101	American Federal Government .....	3
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Total hours required for a major ..... 30



Required courses.....	15
HIST 201 and 202      History of the United States .....	6
HIST 333                Modern European History .....	3
HIST 314                Recent United States History OR	
HIST 404            World History.....	3
HIST 412                History of Russia Since 1855 OR	
HIST 420            Modern East Asia Since 1800 .....	3
Traditional concentration.....	15
Any 300- or 400-level history courses or PSCI 400 The Supreme Court and Constitutional Law.	
Public history concentration.....	15
HIST 345                Introduction to Public History .....	3
HIST 300                Historic Preservation (crosslisted as ENV5 307) .....	3
HIST 432                Internship in Public History OR	
HIST 435            Civil War Practicum.....	3
One course from the following.....	3
HIST 318                The United States and World War II .....	3
HIST 360                Evolution of European Government .....	3
HIST 375                First World War .....	3
Any 300 or 400 level course in American history (not HIST 432 or 435)..... 3	
Any other 300 or 400 level history course by special arrangement with instructor ..3	
ANTH 221                Introduction to Museum Studies.....	3
ANTH 345                Archaeological Field Methods and Lab.....	3
ANTH 370                Historic Architecture in the United States .....	3
ENV5 220                Battlefield Preservation .....	3
ENV5 322                Environmental History .....	3
HIST xxx                Any 300 or 400 level history course OR	
PSCI 400            Supreme Court and Constitutional Law.....	3
Civil War and Nineteenth-Century America concentration.....	15
HIST 304                Civil War America, 1850-1865 .....	3
HIST 307                The Reconstruction Era, 1865-1877 .....	3
HIST 430                Civil War Seminar OR	
HIST 435            Practicum in Civil War Studies.....	3
One course from the following.....	3
HIST 303                The Jacksonian Era, 1816-1850.....	3
HIST 308                The Old South .....	3
HIST 345                Introduction to Public History.....	3
HIST 405                Introduction to African American History .....	3
HIST 438                Soldiers and American Society, 1861-1865 .....	3
Elective course.....	3
Any 300- or 400-level history course or PSCI 400 The Supreme Court and Constitutional Law.	

## Curriculum for a Major in Mass Communication

Required courses.....	51
COMM 203                Introduction to Mass Communication .....	3
COMM 222                Voice and Diction .....	3
COMM 302                Writing for the Mass Media.....	3
COMM 320                Presentations for Media .....	3
COMM 326                Radio Practicum .....	3
COMM 329                Sound Design.....	3

COMM 339	Public Relations Writing and Design .....	3
COMM 342	Media Studies .....	3
COMM 350	Single-Camera Production .....	3
COMM 352	Computer-Mediated Communication .....	3
COMM 355	Advertising and Imagery .....	3
COMM 360	Studio Production .....	3
COMM 400	Media Law and Ethics .....	3
COMM 405	Advertising, Writing, and Design .....	3
COMM 392	Cooperative Education in Communication OR	
COMM 402	Seminar in Communication OR	
COMM 450	Internship in Communication .....	3
COMM 420	Advanced Production.....	3
COMM 461	Senior Project.....	3

Note: Mass communication majors and minors must earn a C or better in all required 300 and 400 level communications courses. One cannot major in mass communication and minor in mass communication. One may major in mass communication and minor in journalism provided that the student substitutes all repetitive courses with elective courses approved by the journalism coordinator. Please note that COMM 203 is a prerequisite for all courses in the mass communication major, mass communication minor, and journalism minor. COMM 203 is to be the first course taken by mass communication majors and minors.

Note: All students are required to take 45 hours of upper division courses to qualify for graduation.

Curriculum for a Comprehensive Major in Mathematics—  
Engineering Concentration

The focus of this concentration is to prepare students for the third year of a baccalaureate degree program in engineering.

First and Second Year

Specific general studies requirements.....	21
ECON 205	Principles of Macroeconomics ..... 3
MATH 207*	Calculus I..... 4
PHYS 221, 221L	General Physics I..... 4
PHYS 222, 222L	General Physics..... 4
ENGL 101	Written English..... 3
ENGL 104	Science and Technical Writing..... 3

\* A minimum grade of C is required in MATH 207.

Required engineering courses .....		25-30
ENGR 101	Engineering I.....	3
ENGR 102	Engineering II .....	3
ENGR 221, 222	Introduction to Electrical Engineering and Lab.....	4
ENGR 241	Engineering Statics.....	3
ENGR 242	Engineering Dynamics .....	3
ENGR 243	Engineering Mechanics or Materials* OR .....	3
CHEM 315/316	Organic Chemistry I and II and Labs OR .....	8
ENGR 305	Digital Logic.....	3
ENGR 301	Engineering Thermodynamics.....	3
ENGR 351	Introduction to Fluid Mechanics.....	3

Concentration requirements .....		20
MATH 100	Freshman Seminar .....	1
MATH 208	Calculus II .....	4
MATH 309	Calculus III .....	4
MATH 310	Differential Equations.....	4

CHEM 207, 207L	General Chemistry .....	4
ECON 206	Principles of Microeconomics .....	3

Students who are seeking a degree in mathematics with a concentration in engineering must complete the following course of study concurrently with the first two years.

Third and Fourth Years

Required courses in computer science and mathematics .....		36
MATH 254	Discrete Mathematics .....	3
MATH 307	Linear Algebra .....	3
MATH 318	Numerical Analysis.....	3
MATH 321	Probability and Statistics.....	3
MATH 329	Mathematical Modeling.....	3
MATH 354	Operations Research.....	3
MATH 392	Internship in Mathematics .....	3
MATH 434	Senior Capstone Practicum .....	1
MATH 433	Applied Mathematics.....	3
ENGR 351	Fluid Mechanics.....	3
CIS 234	Introduction to Networking.....	3
CIS 386	Computer Organization.....	4

Curriculum for a Comprehensive Major in Mathematics—  
Industrial Mathematics Concentration

Total hours required.....		127
Specific general studies requirements .....		17
ECON 205	Principles of Macroeconomics .....	3
ENGL 104	Science and Technical Writing.....	3
MATH 154	Finite Mathematics .....	3
PHYS 221, 221L	General Physics I and Lab.....	4
PHYS 222, 222L	General Physics II and Lab.....	4
Mathematics requirements .....		41
MATH 100	Freshman Seminar .....	1
MATH 207*	Calculus I.....	4
MATH 208	Calculus II .....	4
MATH 254	Discrete Mathematics .....	3
MATH 307	Linear Algebra .....	3
MATH 309	Calculus III .....	4
MATH 310	Differential Equations.....	4
MATH 318	Numerical Analysis.....	3
MATH 321	Probability and Statistics.....	3
MATH 329	Mathematical Modeling.....	3
MATH 354	Operations Research.....	3
MATH 392	Co-op in Mathematics .....	3
MATH 433	Applied Mathematics.....	3
* A minimum grade of C is required in MATH 207.		
Engineering requirements.....		25
ENGR 101	Engineering I.....	3
ENGR 102	Engineering II .....	3
ENGR 241	Engineering Statics.....	3
ENGR 242	Engineering Dynamics .....	3
ENGR 221, 222	Introduction to Electrical Engineering and Lab.....	4
ENGR 243	Mechanics of Materials.....	3
ENGR 326	Linear Systems .....	3



ENGR 351	Fluid Mechanics.....	3
Additional requirements.....		7
CHEM 207, 207L	General Chemistry .....	4
CIS 234	Introduction to Networking.....	3
CIS 287	System Analysis and Design .....	3
ENGR 305	Digital Logic Design .....	4
Required courses from other departments .....		6
BADM 150	Introduction to Business .....	3
BADM 310	Principles of Management.....	3
ECON 206	Principles of Microeconomics .....	3

Curriculum for Mathematics Teaching Field Grades 5-Adult

Total hours required .....		40
Content skill level:		
MATH 106	Trigonometry .....	3
MATH 108	Precalculus (general studies requirement)	
Mathematics core:		
MATH 207	Calculus I .....	4
MATH 208	Calculus II .....	4
MATH 254	Discrete Mathematics .....	3
MATH 309	Calculus III .....	4
MATH 329	Mathematical Modeling.....	3
MATH 434	Senior Capstone Practicum .....	1
Advanced mathematics for education:		
MATH 307	Linear Algebra .....	3
MATH 312	Introduction to Abstract Algebra .....	3
MATH 321**	Probability and Statistics .....	3
MATH 414	History and Development of Mathematics.....	3
MATH 424	Foundations of Geometry .....	3

\*\*MATH 154 Finite Mathematics and MATH 314 Statistics may be substituted for MATH 321 Probability and Statistics.

**Special Requirements:** 1.) Prior to student teaching, prospective student teachers must demonstrate competency in a computer programming language or receive a minimum of C in ENGR 102 Engineering II or CIS 211 Computer Languages Concepts. 2.) To graduate, prospective student teachers must pass PRAXIS II Math Content Test or pass MATH 435 PRAXIS II Math Preparation. See professional education course listings under Education: Professional Studies Core for Secondary Education (34 hours required). Special Methods of Teaching Mathematics is EDUC 420. Contact Person: Dr. Suda Kunyosying, Stutzman-Slonaker Hall 211D, 304/876-5282.

Curriculum for Mathematics Teaching Field Grades 5-9 General Mathematics through Algebra I

Total hours required .....		22
Content skill level:		
MATH 105	Algebra .....	3
MATH 106	Trigonometry.....	3
MATH 108	Precalculus.....	3
MATH 200	Geometry and Measurement.....	3
MATH 205	Calculus with Applications .....	4
Additional mathematics for education:		
MATH 154	Finite Mathematics (general studies requirement)	
MATH 254	Discrete Mathematics .....	3
MATH 314	Statistics.....	3



See professional education course listings under Education: Professional Studies Core for Secondary Education (34 hours required) or Professional Studies Core for Middle School Education (36-37 hours required). Special Methods of Teaching Mathematics is EDUC 420.  
Contact Person: Dr. Suda Kunyosying, Stutzman-Slonaker Hall 211D, 304/876-5282.

## Curriculum for a Major in Spanish

The major in Spanish seeks to help prepare students to live in a complex, technological, and diverse world by introducing them to varying perspectives offered by a thorough study of Spanish and Latin American literature, the Spanish language, and Spanish for the professions. Through these perspectives, sociological and personal barriers may be broken down, and the possibilities as well as the paradoxes of human existence may be better understood.

The primary objectives of the Spanish curriculum include the following:

- 1. To encourage students to think critically and to communicate their thoughts effectively by helping them develop the skills necessary to understand and utilize the Spanish language;
- 2. To contribute to the liberal arts education of all students by exposing them to the diversity and richness of Spanish and Latin American literature;
- 3. To prepare English education majors to become reflective problem solvers capable of teaching Spanish on the middle and secondary levels in a country as ethnically diverse as ours;
- 4. To provide students, particularly Spanish majors, with a broad background which will enable them to pursue graduate study; and
- 5. To give Spanish and Spanish education majors a knowledge of the basic tools of effective written communication, technology, and an understanding of literature that will enable them to pursue any vocation and function in a diverse and global work world.

Total hours required for a major in Spanish .....	30
Required courses .....	16
SPAN 301                      Advanced Conversation and Composition I.....	3
SPAN 302                      Advanced Conversation and Composition II.....	3
SPAN 306                      Peninsular Culture and Civilization .....	3
SPAN 307                      Latin American Culture and Civilization .....	3
SPAN 411                      Study Abroad.....	3
SPAN 485                      Capstone Presentation .....	1
Electives .....	14
SPAN 305                      Spanish for Business.....	3
SPAN 310                      Survey of Spanish Literature I.....	3
SPAN 311                      Survey of Spanish Literature II.....	3
SPAN 312                      Survey of Latin American Literature I.....	3
SPAN 313                      Survey of Latin American Literature II.....	3
SPAN 367                      Spanish and Latin Film Studies .....	3
EDUC 425                      Special Methods of Teaching Foreign Language.....	3
SPAN 400                      Survey in Spanish I: Hispanic Short Story .....	3
SPAN 401                      Survey in Spanish II: Hispanic Drama.....	3
SPAN 402                      Survey in Spanish III: Hispanic Novel.....	3
SPAN 403                      Survey in Spanish IV: Hispanic Poetry .....	3
SPAN 404                      Spanish Linguistics.....	3
SPAN 405                      Seminar in Literature I.....	3
SPAN 406                      Seminar in Literature II.....	3
SPAN 407                      Seminar in Literature III.....	3
SPAN 410                      Practicum in Spanish.....	3
SPAN 419                      Independent Study in Spanish .....	3

Spanish majors must satisfy a general education language requirement in Spanish either by taking the appropriate courses or through a departmental challenge exam.

Curriculum for a Minor in Spanish

*Total hours required for a minor in Spanish.....		24
Required courses .....		12
SPAN 101	Elementary Spanish I .....	3
SPAN 102	Elementary Spanish II .....	3
SPAN 203	Intermediate Spanish I .....	3
SPAN 204	Intermediate Spanish II .....	3
Electives .....		12
Nonliterary Track**:		
SPAN 301	Advanced Conversation and Composition I.....	3
SPAN 303	Contemporary Hispanic World.....	3
SPAN 304	Introduction to Spanish/Latin American Literature.....	3
SPAN 305	Spanish for Business.....	3
Literary Track**:		
SPAN 310	Survey of Spanish Literature I.....	3
SPAN 311	Survey of Spanish Literature II.....	3
SPAN 312	Survey of Latin American Literature I.....	3
SPAN 313	Survey of Latin American Literature II.....	3
SPAN 400	Survey in Spanish I: Hispanic Short Story .....	3
SPAN 401	Survey in Spanish II: Hispanic Drama.....	3
SPAN 402	Survey in Spanish III: Hispanic Novel .....	3
SPAN 403	Survey in Spanish IV: Hispanic Poetry .....	3
SPAN 410	Practicum in Spanish.....	3
SPAN 419	Independent Study in Spanish .....	3

\*Advanced Placement credit for foreign language courses may lessen the number of courses actually required for the minor. Also, many liberal arts majors require the first two-year language sequence for degree fulfillment; thus students in the liberal arts majors who take the Spanish minor need only take an additional 12 hours for the minor.

\*\*Students may take courses from both literary and nonliterary tracks toward fulfillment of the minor.

Curriculum for a Teaching Field in Music PreK-Adult

Total minimum semester hours required.....		146
Professional education requirements .....		34
General education requirements .....		45
Music requirements.....		67
MUAP xxx	Applied Major Instrument .....	7
MUAP 497	Senior Music Activity .....	1
MUEN 360	Band .....	1
MUEN 374	Concert Choir .....	1
MUEN 360	Band (instrumentalists) OR	
MUEN 374	Concert Choir (vocalists) .....	6
MUSC 100	First Year Seminar for Music Majors .....	1
MUSC 103	Theory I .....	3
MUSC 104	Aural Skills I .....	1
MUSC 105	Theory II .....	3
MUSC 106	Aural Skills II.....	1
MUSC 203	Theory III .....	3
MUSC 204	Aural Skills III.....	1
MUSC 205	Theory IV .....	2
MUSC 206	Aural Skills IV .....	1
MUSC 227	Introduction to Conducting .....	1
MUSC 230	Woodwind Techniques I.....	1

MUSC 231*	Woodwind Techniques II .....	1
MUSC 232	Brass Techniques .....	1
MUSC 233*	String Techniques.....	1
MUSC 234*	Percussion Techniques .....	1
MUSC 237**	Diction I .....	3
MUSC 303	Forms and Analysis .....	3
MUSC 310	Music History I .....	3
MUSC 311	Music History II .....	3
MUSC 312	Music History III .....	3
MUSC 320	Guitar Pedagogy OR	
MUSC 321	Piano Pedagogy.....	2
MUSC 322	Instrumental Pedagogy .....	2
MUSC 323**	Vocal Pedagogy.....	2
MUSC 324*	Marching Band Pedagogy .....	2
MUSC 325	Choral Methods and Materials.....	3
MUSC 326	Teaching Elementary Education.....	2
MUSC 327	Conducting II-Choral OR	
MUSC 328	Conducting II-Instrumental.....	3
MUSC 329	Electronic Music Media .....	2
MUSC 498	Senior Music Seminar .....	1

\* Not required for choral music education emphasis.

\*\*Not required for instrumental music emphasis.

See professional education course listings under Education: Professional Studies Core for Secondary Education (34 hours required). Special Methods of Teaching Music is EDUC 426.

Contact Person: Coordinator of Music Education, Frank Center M-01, 304/876-5225.

## Nursing

### R.N.-to-B.S.N. Admission Process

The following must be submitted to the department chair no later than March 15 prior to summer enrollment in NURS 410: Advanced Nursing Concepts and Practice:

1. Department of Nursing Education admission application;
2. Official transcript copy on file; transcript must be reviewed and academic advisement form signed by advisor and advisee;
3. Proof of current R.N. licensure and CPR certification;
4. A professional portfolio which includes the following:
  - a. Résumé of nursing work experience (include a narrative summary of most recent work experience roles and responsibilities);
  - b. Professional goals for completing the B.S.N. program (including how program completion will affect applicants' work and future educational goals);
  - c. Professional activities for the last three years:
    1. Continuing nursing education completed (seminars, courses, programs)
    2. Professional development (committees, nursing organizations/associations)
    3. Community involvement (church, school, children's activities)

### R.N.-to-B.S.N. Curriculum Plan

I. Prior to matriculation into the B.S.N. program, students must complete the general studies and prerequisites listed previously.

Total credit hours required for degree .....	130
General studies and prerequisites .....	71
R.N. curriculum .....	59
Previous nursing courses credit.....	38
B.S.N. courses .....	21



II. Upon completion of general studies and prerequisites, the R.N. will enroll in:

Fall or Spring:	
NURS 313	Nursing 1-A Health Assessment..... 3
Spring or Fall:	
NURS 324	Nursing Research..... 2
Summer Only:	
NURS 410	Advanced Nursing Concepts and Practice..... 6
Fall Only:	
NURS 411	Nursing IV Community Health..... 3
NURS 413	Nursing IV Clinical Component ..... 3
Spring Only:	
NURS 434	Management and Issues in Health Care ..... 3
NURS 436	Capstone Seminar ..... 1

Curriculum for a Major in Psychology

With permission of the chair of the Department of Psychology and the student’s advisor, six of the 18 elective hours may be career-track electives. These are courses that clearly relate to the student’s career plans, but they cannot overlap with courses comprising the student’s minor field of study.

Total hours required.....	35
Required hours: .....	17
PSYC 203	Introduction to Psychology ..... 3
PSYC 400	Research Methods in Psychology ..... 4
PSYC 420	History and Systems of Psychology ..... 3
PSYC 485	Senior Thesis..... 3
PSYC 250*	Statistics for the Social Sciences ..... 4
Electives .....	18
Restricted electives, Group I (choose two courses)	
PSYC 461	Survey of Physiological Psychology..... 3
PSYC 471	Cognitive Psychology OR
PSYC 472	Psychology of Learning..... 3
PSYC 415	Tests and Measurement ..... 3
Restricted electives, Group II (choose two courses)	
PSYC 405	Social Psychology ..... 3
PSYC 410	Psychology of Personality ..... 3
PSYC 460	Abnormal Psychology ..... 3
Free electives (choose a minimum of two courses)	
PSYC 300	Infant/Child Development..... 3
PSYC 301	Adolescent Development ..... 3
PSYC 302	Psychology of Aging ..... 3
PSYC 311	Introduction to Clinical Psychology ..... 3
PSYC 312	Practicum in Psychology I ..... 3
PSYC 313	Practicum in Psychology II ..... 3
PSYC 314	Field Experience in Art Therapy ..... 3
PSYC 316	Art Therapy ..... 3
PSYC 320	Human Sexual Behavior ..... 3
PSYC 321	Industrial/Organizational Psychology ..... 3
PSYC 325	Health Psychology ..... 3
PSYC 326	Psychology of Substance Abuse ..... 3
PSYC 330	Family Therapy ..... 3
PSYC 331	Counseling Children ..... 3
PSYC 364	Lifespan Developmental Psychology ..... 3
PSYC 365	Psychopharmacology ..... 3
PSYC 367	Motivation and Emotion ..... 3

PSYC 370	Sensations and Perception.....	3
PSYC 404	Psychology Seminar .....	3
PSYC 420	History and Systems of Psychology .....	3
PSYC 430	Humanistic Psychology .....	3
FACS 304	Child Development .....	3
PSYC 206, 306, 406	Special Topics in Psychology .....	3
*MATH 314 or BADM 224 may be substituted for PSYC 250.		

Curriculum for a Minor in Psychology

Total hours required .....	23
Required courses .....	11
PSYC 203	Introduction to Psychology ..... 3
PSYC 400	Experimental Psychology ..... 4
PSYC 250*	Statistics for the Social Sciences ..... 4
Electives .....	12
Restricted electives, Group I (choose one course)	
PSYC 461	Survey of Physiological Psychology ..... 3
PSYC 471	Cognitive Psychology OR
PSYC 472	Psychology of Learning ..... 3
PSYC 415	Tests and Measurement ..... 3
Restricted electives, Group II (choose one course)	
PSYC 405	Social Psychology ..... 3
PSYC 410	Psychology of Personality ..... 3
PSYC 460	Abnormal Psychology ..... 3
Free electives (choose a minimum of two courses)	
PSYC 300	Infant/Child Development..... 3
PSYC 301	Adolescent Development ..... 3
PSYC 302	Psychology of Aging ..... 3
PSYC 311	Introduction to Clinical Psychology ..... 3
PSYC 312	Practicum in Psychology I ..... 3
PSYC 313	Practicum in Psychology II ..... 3
PSYC 314	Field Experience in Art Therapy ..... 3
PSYC 316	Art Therapy ..... 3
PSYC 320	Human Sexual Behavior ..... 3
PSYC 321	Industrial/Organizational Psychology ..... 3
PSYC 325	Health Psychology ..... 3
PSYC 326	Psychology of Substance Abuse ..... 3
PSYC 330	Family Therapy ..... 3
PSYC 331	Counseling Children ..... 3
PSYC 364	Lifespan Developmental Psychology ..... 3
PSYC 365	Psychopharmacology ..... 3
PSYC 367	Motivation and Emotion ..... 3
PSYC 370	Sensations and Perception..... 3
PSYC 404	Psychology Seminar ..... 3
PSYC 420	History and Systems of Psychology ..... 3
PSYC 430	Humanistic Psychology ..... 3
FACS 304	Child Development ..... 3
PSYC 206, 306, 406	Special Topics in Psychology ..... 1-3

\*MATH 314 or BADM 224 may be substituted for PSYC 250. Where the student has taken Statistics for the major, an additional upper-level PSYC course may be substituted.

Curriculum for Teaching Field in Social Studies Grades 5-Adult

Specific general studies requirements.....		6
PSCI 101	American Federal Government .....	3
ECON 205	Principles of Macroeconomics .....	3
Required courses .....		45
HIST 201	History of the United States to 1865 AND	
HIST 202	History of the United States 1865 to Present .....	6
HIST 309	West Virginia and the Appalachian Region .....	3
HIST 314	Recent United States History OR	
HIST 315	History of American Women OR	
HIST 405	Introduction to African-American History .....	3
HIST 333	Modern European History .....	3
HIST 338	European Women to 1500 OR	
HIST 339	European Women since 1500 OR	
HIST 410	Russia to 1855 OR	
HIST 411	Latin American History OR	
HIST 412	History of Russia since 1855 .....	3
HIST 320	Sub-Saharan Africa OR	
HIST 419	East Asia to 1800 OR	
HIST 420	Modern East Asia OR	
HIST 421	History of Modern Japan.....	3
GEOG 101	Principles of World Geography .....	3
GEOG 301	World Economic Geography .....	3
GEOG 400	Geography of Latin America OR	
GEOG 407	Geography of Asia OR	
GEOG 408	Geography of Africa .....	3
PSCI 102	State and Local Government OR	
PSCI 317	American Political Thought .....	3
ECON 206	Principles of Microeconomics .....	3
PSYC 203	Introduction to Psychology.....	3
SOCI 205	Social Problems .....	3
ANTH 315	Cultural Anthropology OR	
PSYC 305	Social Psychology OR	
SOCI 403	Ethnic Relations.....	3

Curriculum for Teaching Field in Social Studies Grades 5-9

The social studies 5-9 program, which offers a subject specialization for certification, is intended primarily for students preparing to teach in middle schools.

Specific general studies requirements.....		6
PSCI 101	American Federal Government .....	3
ECON 123	Contemporary Economics.....	3
Required courses .....		24
HIST 201	History of the United States to 1865.....	3
HIST 202	History of the United States 1865 to Present .....	3
HIST 309	West Virginia and the Appalachian Region .....	3
HIST 314	Recent United States History, 1945 to Present OR	
HIST 315	History of American Women OR	
HIST 405	Introduction to African-American History .....	3
HIST 320	Sub-Saharan Africa OR	
HIST 333	Modern European History OR	
HIST 338	History of Women in Europe before 1500 OR	
HIST 339	History of Women in Europe after 1500 OR	



HIST 419	East Asia to 1800 OR	
HIST 420	Modern East Asia OR	
HIST 421	History of Modern Japan.....	3
GEOG 101	Principles of World Geography .....	3
GEOG 301	World Economic Geography .....	3
PSCI 102	State and Local Government.....	3
See professional education course listings under Education: Professional Studies Core for Secondary Education (34 hours required) or Professional Studies Core for Middle School Education (36-37 hours required). Special Methods of Teaching Social Studies is EDUC 422.		
Contact Person: Dr. Barri Tinkler, Knutti Hall 103A, 304/876-5508 or the Department of Education, Knutti Hall 107, 304/876-5305.		

Curriculum for a Major in Sociology, Criminal Justice Concentration

Total hours required.....	42
Required courses in sociology .....	18
SOCI 205            Social Problems.....	3
SOCI 303            The Family.....	3
MATH 314           Statistics.....	3
SOCI 403            Ethnic Relations.....	3
SOCI 405            Research Methods .....	3
SOCI 410            Social Theory.....	3
Required courses in criminal justice .....	15
CRIM 200           Introduction to Criminal Justice .....	3
CRIM 325           Penology OR	
CRIM 440           Probation and Parole .....	3
SOCI 325            The Correctional Institution .....	3
SOCI 402            Criminology.....	3
SOCI 419            Internship in Sociology/Criminal Justice .....	3
Electives in criminal justice and sociology .....	9
Choose any 3 of the following courses:	
CRIM 315            Criminal Investigation .....	3
CRIM 310            Principles of Criminal Law .....	3
CRIM 311            Criminal Justice Procedures .....	3
CRIM 425            Police and Community Relations.....	3
SOCI 390            Sociology of Violence.....	3
SOCI 411            Social Stratifications.....	3
SOCI 407            Collective Behavior .....	3
SOWK 417           Sex and Gender Roles in Contemporary Society .....	3

All students transferring from or completing a two-year program at Shepherd may use all the sociology and criminal justice courses taken in the two-year program to substitute for required courses and electives in the sociology major with the criminal justice concentration. All courses transferring from other educational systems will have to be examined on a course-by-course basis.

COURSES

ART EDUCATION

ARED 345. CURRICULUM AND INSTRUCTION IN ART EDUCATION (4)

A comprehensive study of the psychology of art intended for art education majors. This course surveys methods of critical, analytical, and evaluative thinking associated with creative problem solving. Visual communication principles, social issues, group dynamics, and research methods are stressed. Prerequisites: ART 104, ART 140, and ARED 180.

## BIOLOGY

### BIOL 301. EVOLUTION (3)

The evidence for the theory of evolution will be surveyed. Descriptions of how genes change, function, and become inherited will be tied to Darwin's theory of natural selections at the physiological and ecological levels. Biology majors are required to co-register for BIOL 301L Evolution Laboratory. Prerequisites: BIOL 208 and BIOL 209, or BIOL 101 and BIOL 102.

### BIOL 301L. EVOLUTION LABORATORY (1)

This laboratory course is the companion course for BIOL 301. Biology majors taking BIOL 301 are required to co-register for BIOL 301L. Exercises and experiments will demonstrate gene variation, natural selection, changes in gene frequency, and fossil evidence supporting the theory of evolution. Prerequisites: BIOL 208 and 209, or BIOL 101 and 102. Corequisite: BIOL 301.

### BIOL 315. ADVANCED PLANT BIOLOGY (4)

An expansion of the Plants as Organisms topics. This course examines the structural features of the major plant groups with special reference to comparative life cycle mechanisms. There will be laboratory opportunities to investigate nutritional physiology, hormone regulation, and photo-physiology in various culture samples, including plant tissue cultures.

### BIOL 344. GENETICS (4)

Mechanisms of inheritance, the nature of genes, and genetic systems are examined in relation to the capacities of living systems for continuity, self-regulation, and adaptive change. Molecular, cellular, and organismal reproduction are considered as processes of information storage, transfer, and generation. The development of the gene concept is traced from its origin as a mathematical abstraction, through progressive definition as a unit of nuclear structure and function, to final characterization as nucleic acid. Prerequisites: BIOL 208, BIOL 209, BIOL 305.

### BIOL 411. ANIMAL BEHAVIOR (4)

An evolutionary approach to behavioral strategies emphasizing ecological and physiological mechanisms of behavior. Topics include hereditary and environmental influences, neural control of behavioral choices, and the evolution of social behavior. Prerequisites: BIOL 101, 102 or BIO 208, 209 or equivalent.

### BIOL 412. COMPARATIVE ANIMAL PHYSIOLOGY (4)

A comparative approach to the functional adaptations of animals to diverse environments with emphasis on underlying physiological and biochemical mechanisms. Relevant physiological functions include gas exchange, circulation, digestion, excretion, osmoregulation, metabolism, muscle contraction, as well as neural and endocrine coordinating mechanisms. Prerequisites: BIOL 208, 209, 305 (concurrent acceptable), CHEM 207, CHEM 207L, CHEM 209, and CHEM 209L.

### BIOL 415. BIOLOGICAL RESEARCH (1-6)

This course awards academic credit for Department of Biology-approved research supervised on campus in a field, laboratory, or other professional setting which enables a student to gain practical knowledge in pure or applied science. A student wishing to enroll in this course must submit a written proposal (following department guidelines that can be obtained from the chair of the Department of Biology) to the chair of the Department of Biology or his/her appointed representative before the 12th week of the semester preceding the internship. All proposals must be approved by a majority of the faculty members of the Department of Biology. Students must complete 3 to 6 credit hours to meet the requirements of a biology major. Students may enroll repeatedly up to a maximum of 6 total semester hours. Prerequisite: BIOL 394 or permission of the department chair.

**BIOL 425. INTERNSHIP IN BIOLOGY (1-6)**

This course awards academic credit for Department of Biology-approved research supervised externally in a field, laboratory, or other professional setting which enables a student to gain practical knowledge in pure or applied science. A student wishing to enroll in this course must submit a written proposal (following department and/or agency guidelines that can be obtained from the chair of the Department of Biology) to the chair of the Department of Biology or his/her appointed representative before the 12th week of the semester preceding the internship. All proposals must be approved by a majority of the faculty members of the Department of Biology. Students must complete 3 to 6 credit hours to meet the requirements for a biology major. Students may enroll repeatedly up to a maximum of 6 total semester hours. Prerequisite: BIOL 394.

**BUSINESS ADMINISTRATION****BADM 406. PROFESSIONAL SELLING AND APPLIED BUSINESS (3)**

This course investigates the qualities and skills required to become a sales professional and the applied sales management tools that are used to manage a revenue generation team. These practical management tactics are also useful for any professional who is responsible for the productivity of others.

**BADM 408. TECHNOLOGY IN BUSINESS (3)**

This course examines the effects of technology on and in business. While information technology will be considered heavily, other related technologies will be addressed. Students should understand how specific technologies can affect businesses directly and the technological-centric issues that can drive business, including ethics and security.

**COMMUNICATIONS****COMM 420. ADVANCED PRODUCTION (3)**

A course in which students develop and produce supervised original projects in electronic media. Projects may involve broadcasting, sound design, video, and multimedia. Prerequisites: COMM 202, COMM 203, and COMM 329 or COMM 350.

**COMPUTER AND INFORMATION SCIENCES****CIS 211. COMPUTER LANGUAGE CONCEPTS (4)**

A first course in the fundamentals of computer programming using an object-oriented programming. Includes basic data types, problem solving and algorithm design methods, program design, coding, testing, and debugging. Students learn the programming characteristics of subprograms, parameter passing, and modularity. Includes formal laboratory session. Prerequisite: CIS 104.

**CIS 234. INTRODUCTION TO NETWORKING (3)**

Students will learn the fundamental concepts of networking. Case studies and hands-on projects will consider networking topics including hardware, protocols, architecture, media, design, implementation, and troubleshooting, maintaining, and upgrading computer networks. Prerequisite: CIS 104.

**CIS 302. WINDOWS PROGRAMMING (3)**

An in-depth study of creating the Windows graphical user interface (GUI). Students create powerful, full-featured applications which utilize the key features of Microsoft Windows, including ActiveXdata objects (ADO.NET), Multiple Document Interface (MDI), Dynamic Link Libraries (DLLs), and graphics. Prerequisite CIS 211 or permission of instructor.

**CIS 324. INTRODUCTION TO ARTIFICIAL INTELLIGENCE (3)**

An overview of artificial intelligence, its tools and techniques. Includes such subjects as fuzzy logic, nonprocedural programming, basic search techniques, automated reasoning, and expert systems.



Programming in Prolog or LISP and the creation of knowledge-based systems using expert system software shells. Emphasis on the application of artificial intelligence techniques to business and industrial problems. Prerequisites: CIS 211, 321.

### **CIS 332. WEB PROGRAMMING I (3)**

Students learn new skills, languages, and concepts required to create applications that use the World Wide Web as the basis for the user's interaction with the application. This is the first of the two-course sequence on this topic and focuses on client-side application programming (JavaScript, HTML/XML, CSS, DHTML, DOM, and Java). Prerequisite: CIS 211 or permission of instructor.

### **CIS 334. WEB PROGRAMMING II (3)**

This is the second semester of the two-course sequence on Web programming. It focuses on the server-side application programming in general and database in particular. It covers ASP.NET and VBScript as well as advanced topics such as XML Web service, SOAP, cookies, and security. Three-tier architecture of Web-based applications will be discussed. Other server-side programming languages such as PHP may also be covered. Prerequisites: CIS 332 and CIS 302 or permission of the instructor.

### **CIS 386. COMPUTER ORGANIZATION (4)**

Students will learn the principles of computer organization. Topics include the functional components of a computer, memory organization, auxiliary storage, system interconnection, digital logic, assembly language programming, and evolution and future trends of computer organization. Weekly laboratories will illustrate computer organization concepts and techniques. Prerequisites: CIS 211 and CIS 234.

### **CIS 392. COOPERATIVE WORK EXPERIENCE IN PROGRAMMING (1-6)**

A supervised work experience in which the student is employed in an area that relates directly to and enhances his/her academic field of study. Prerequisites: 2.5 GPA and 12 credit hours of CIS course work. May be repeated for a maximum of 6 credits.

### **CIS 419. DATA COMMUNICATIONS AND LOCAL AREA NETWORKS (3)**

An introduction to the role of data communications and local area networks in a business environment. Management of data communications systems and local area networks. Special topics to be covered include fundamental communications concepts, data communications hardware, network configurations, protocols and software, microcomputers and communications, and local area networks (LANs). Prerequisites: CIS 234 and CIS 314.

### **CIS 421. COMPUTER ARCHITECTURE (3)**

Topics include information representation, tags, check bits, floating-point arithmetic, instruction sets, RISC vs CISC, ALU design, bit slicing, microprogrammed control, microinstruction type, microprogram optimization, cache memories, interleaved memories, communication methods, bus control and timing, input-output, programmed I/O, interrupts and DMA, parallel and vector processors, pipelines, shared vs distributed memory, interconnection networks, and hypercube computers. Prerequisites: CIS 385 and CIS 386.

### **CIS 431. ALGORITHMS AND DATA STRUCTURES (3)**

The topics of this course include basic tools for algorithm analysis including asymptotic notation, lower and upper bounds, and recursive relations; advanced data structures; analysis of recursive algorithms; analysis of algorithms for searching and sorting; analysis of graph and geometric algorithms; analysis of numerical algorithms; study of NP-complete problems; and study of parallel algorithms. Prerequisite: CIS 321, MATH 307, and MATH 314.

**CIS 482. REAL TIME AND EMBEDDED SYSTEM DESIGN (3)**

A general introduction to real-time operating systems and embedded system design. Prerequisite: CIS 421.

**CIS 486. NETWORK SECURITY (4)**

Students will learn how to protect computer networks from internal and external digital threats by studying security concepts and techniques. Topics include fundamental concepts of cryptography, cryptographic key distribution and management, authentication protocols, digital signatures, security policy, virtual private networks (VPNs) and their implications to security, and protection of Internet and Web-based systems and services. Weekly hands-on laboratories will investigate computer network security techniques. Prerequisite: CIS 423 or permission of instructor.

**CRIMINAL JUSTICE****CRIM 315. CRIMINAL INVESTIGATION (3)**

This course examines the fundamental principles of criminal investigation with concentration on the following areas—report writing; sources of information including witnesses, complainants, victims, observation, physical description, identification, interviews, interrogation, modus operandi, informants, surveillance, and undercover techniques; crime scene search, collection, preservation, and processing of physical evidence; and raids, arrests, search, seizure, and case preparation.

**EDUCATION****EDUC 351. INTEGRATED READING AND LANGUAGE ARTS I (5)**

Integrated Reading and Language Arts I, in conjunction with its corequisite Integrated Math, Science, and Social Studies I, is the first semester of a two-semester course experience designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an education experience for children. This course block has both a classroom and a field component. Student will complete 50 hours in their field placement. Prerequisite: Admission to teacher education program. Corequisite: EDUC 352.

**EDUC 352. INTEGRATED MATH, SCIENCE, AND SOCIAL STUDIES I (4)**

Integrated Math, Science, and Social Studies I, in conjunction with its corequisite Integrated Reading and Language Arts I, is the first semester of a two-semester course experience designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an education experience for children. This course block has both a classroom and field component. Students will complete 50 hours in their field placement. Prerequisite: Admission to teacher education program. Corequisite: EDUC 351.

**EDUC 353. INTEGRATED READING AND LANGUAGE ARTS II (4)**

Integrated Reading and Language Arts II, in conjunction with its corequisite Integrated Math, Science, and Social Studies II, is the second semester of a two-semester course experience designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an education experience for children. This course block has both a classroom and field component. Students will complete 70 hours in their field placement. Prerequisites: EDUC 351 and EDUC 352. Corequisite: EDUC 354.

**EDUC 354. INTEGRATED MATH, SCIENCE, AND SOCIAL STUDIES II (5)**

Integrated Math, Science, and Social Studies II, in conjunction with its corequisite Integrated Reading and Language Arts II, is the second semester of a two-semester course experience designed to promote the development of teachers who have a philosophical and principled understanding and



commitment to an integrated curriculum and the practical strategies to implement such an education experience for children. This course block has both a classroom and field component. Students will complete 70 hours in their field placement. Prerequisites: EDUC 351 and EDUC 352. Corequisite: EDUC 353. EDUC 351. Integrated Reading and Language Arts I (5)

Integrated Reading and Language Arts I, in conjunction with its corequisite Integrated Math, Science, and Social Studies I, is the first semester of a two-semester course experience designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an education experience for children. This course block has both a classroom and a field component. Student will complete 50 hours in their field placement. Prerequisite: Admission to teacher education program. Corequisite: EDUC 352.

#### **EDUC 352. INTEGRATED MATH, SCIENCE, AND SOCIAL STUDIES I (4)**

Integrated Math, Science, and Social Studies I, in conjunction with its corequisite Integrated Reading and Language Arts I, is the first semester of a two-semester course experience designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an education experience for children. This course block has both a classroom and field component. Students will complete 50 hours in their field placement. Prerequisite: Admission to teacher education program. Corequisite: EDUC 351.

#### **EDUC 353. INTEGRATED READING AND LANGUAGE ARTS II (4)**

Integrated Reading and Language Arts II, in conjunction with its corequisite Integrated Math, Science, and Social Studies II, is the second semester of a two-semester course experience designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an education experience for children. This course block has both a classroom and field component. Students will complete 70 hours in their field placement. Prerequisites: EDUC 351 and EDUC 352. Corequisite: EDUC 354.

#### **EDUC 354. INTEGRATED MATH, SCIENCE, AND SOCIAL STUDIES II (5)**

Integrated Math, Science, and Social Studies II, in conjunction with its corequisite Integrated Reading and Language Arts II, is the second semester of a two-semester course experience designed to promote the development of teachers who have a philosophical and principled understanding and commitment to an integrated curriculum and the practical strategies to implement such an education experience for children. This course block has both a classroom and field component. Students will complete 70 hours in their field placement. Prerequisites: EDUC 351 and EDUC 352. Corequisite: EDUC 353.

#### **EDUC 400. INCLUSION IN THE REGULAR CLASSROOM (3)**

A weekly seminar taken concurrently with student teaching. Students will investigate and examine how to meet the needs of students identified with special needs who are placed in the regular classroom. Promotes the reflective analysis of the practice of teaching in an inclusive classroom in grades K-6, 5-9, PreK-Adult, 5-Adult, 9-Adult.

#### **EDUC 421. SPECIAL METHODS OF TEACHING ENGLISH (3)**

Current approaches in the teaching of English in the secondary school. Topics include basic teaching procedures and approaches in composition, literature, and grammar; the secondary reading program; critical examination of recent texts; educational media in the field of language arts instruction; materials of instruction. This course is not taught every semester. Students should check in advance with department chair. Prerequisite: Admission to Teacher Education Program. Corequisite: EDUC 370 or 443.



**EDUC 422. SPECIAL METHODS OF TEACHING SOCIAL STUDIES (3)**

Designed to acquaint the student with the philosophy, aims, and methods of teaching social studies in the secondary school. This course is not taught every semester. Students should check in advance with department chair. Prerequisite: Admission to Teacher Education Program. Corequisite: EDUC 370 or 443.

**EDUC 423. SPECIAL METHODS OF TEACHING SCIENCE (3)**

Reflective problem solving in science and science teaching is the major thrust of this course. The student is introduced to or reacquainted with the goals and objectives of modern science education, including scientific literacy for all students. The constructivist approach to learn science is emphasized as students investigate, consider, select, develop, employ, and evaluate a variety of instructional methods, resources, and assessment techniques. Educational technologies currently impacting science teaching/learning are considered, as are the issues of safety and classroom and laboratory management. This course is not taught every semester. Students should check in advance with the natural sciences teaching specializations coordinator. Prerequisite: Admission to Teacher Education Program. Corequisite: EDUC 370 or 443.

**EDUC 425. SPECIAL METHODS OF TEACHING FOREIGN LANGUAGE (3)**

A course designed to acquaint students with the theories of language acquisition and prepare the students to teach language in context and use computer-aided language teaching methods. Students will develop lesson plans and teaching portfolios and will get practical experience teaching foreign language at the 101/102 level. This course is not taught every semester. Students should check in advance with the department chair. Corequisite: EDUC 370 or EDUC 443.

**EDUC 426. SPECIAL METHODS OF TEACHING MUSIC (3)**

A course designed to aid the participants in constructing a working philosophy of music in the schools in which all music activities and courses can be viewed in proper perspective. In addition, emphasis is placed on the refining of known skills as applicable to the means by which music objectives can be realized; developing and administering the band and choral programs along with instrumental and vocal techniques; conducting such specialized music courses as music theory, history, and introduction to music; and examining appropriate teaching materials. This course is not taught every semester. Students should check in advance with department chair. Prerequisite: Admission to Teacher Education Program. Corequisite: EDUC 370 or 443.

**EDUC 427. SPECIAL METHODS FOR TEACHING ART (3)**

This course is designed to provide a synthesis of course work in art, education, and art education for advanced art education majors. Students will explore the nature of teaching visual art in contemporary K-12 grade classrooms including, for example, methods to teach art studio, art criticism, aesthetics, and art history; devices to evaluate student progress; inclusive instructional practices; and instruction in the use of technology. In addition, students will construct and critique a complete nine-month art curriculum useful for teaching in a West Virginia or nearby local public school system. This course is not taught every semester. Students should check in advance with department chair. Prerequisites: ART 104, ART 170, ARED 345, ART 403, and admission to Teacher Education Program. Corequisite: EDUC 370 or 443.

**EDUC 428. SPECIAL METHODS OF TEACHING FAMILY AND CONSUMER SCIENCES (4)**

Current approaches to solving problems directly related to teaching: writing a philosophy, determining objectives, planning teaching strategies, and evaluating learning. This course is not taught every semester. Students should check in advance with department chair. Prerequisite: Admission to Teacher Education Program. Corequisite: EDUC 370 or 443.

**EDUC 431. SPECIAL METHODS OF TEACHING PHYSICAL EDUCATION IN THE ELEMENTARY AND SECONDARY SCHOOLS (3)**

Designed to enable the student to apply the fundamental principles of learning and teaching in the area of physical education at the elementary and secondary levels. A field experience in an area public school is required. This course is offered every fall and must be taken prior to student teaching. Prerequisites: Minimum of 20 hours credit from courses required in teaching field. Prerequisite: Admission to Teacher Education Program. Corequisite: EDUC 370 or 443.

**EDUC 432. SPECIAL METHODS OF TEACHING HEALTH EDUCATION IN THE ELEMENTARY AND SECONDARY SCHOOLS (3)**

Designed to develop effective and current instructional strategies for elementary and secondary health education teachers. This course must be taken prior to student teaching. Prerequisites: Minimum of 20 hours credit from courses required in teaching field, HLTH 103, HLTH 360, HLTH 370. Prerequisite: Admission to Teacher Education Program. Corequisite: EDUC 370 or 443.

**EDUC 443. READING IN THE CONTENT AREAS (3)**

This is a field experience course for all students seeking certification in a secondary teacher education program. An on-campus seminar will focus on reading instruction in the content areas of the curriculum. Attention is given to the identification of the special reading abilities required in the subject matter areas. Students will focus many of their in-field lessons on the teaching of reading in the content area. Students will arrange their field work schedules so that they may meet their individual professional development needs. A minimum of 30 hours in a public school is required. Prerequisite: EDUC 370 or EDUC 319. Corequisite: Special Methods course for students' content area.

**ENGINEERING**

**ENGR 490. ENGINEERING CAPSTONE PROJECT (3)**

Students work as a part of a team to develop solutions to problems in diverse information engineering areas such as biometrics, data mining, and scientific databases such as biological database systems. Prerequisite: Permission of the instructor.

**ENGLISH**

**ENGL 100A. BASIC ACADEMIC WRITING I (2)**

The first of a two-semester course sequence, ENGL 100A is designed to enhance critical thinking, reading, and writing skills as they support academic essay writing, particularly the argument essay. The two semesters stretch the same material as ENGL 101 in order to give students more time to master the course objectives. ENGL 100A emphasizes instruction on the criteria of thesis, academic essay structure, critical reading skills, and critical thinking skills. An emphasis is placed on the reading and writing processes, particularly the stage of revision. Students will be required to attend 100 minutes a week of lecture and 50 minutes a week of tutoring. Completing both ENGL 100A and ENGL 100B serves as an alternate to ENGL 101, and as such serves a prerequisite to ENGL 102, 103, or 104.

**ENGL 100B. BASIC ACADEMIC WRITING II (2)**

The second of a two-semester course sequence, ENGL 100B is designed to enhance critical thinking, reading, and writing skills as they support academic essay writing, particularly the argument essay. The two semesters stretch the same material as ENGL 101 in order to give students more time to master the course objectives. ENGL 100B emphasizes instruction on the criteria of evidence style, sentence-level correctness, and MLA documentation. An emphasis is placed on the reading and writing processes, particularly the stage of revision. Students will be required to attend 100 minutes a week of lecture and 50 minutes a week of tutoring. ENGL 100A is a prerequisite to ENGL 100B. Completing both ENGL 100A and ENGL 100B serves as an alternate to ENGL 101, and as such serves a prerequisite to ENGL 102, 103, or 104.



**ENGL 367. FILM STUDIES (3)**

An in-depth critical study of selected films. Course content will be determined by the individual instructor, but can cover any topic in film studies, i.e., films of any time period, any genre, or any country presented in English and foreign languages. Prerequisite: ENGL 102 or ENGL 103 or ENGL 104.

**ENGL 371. INTRODUCTION TO CREATIVE WRITING (3)**

An introduction to the four basic creative writing genres: poetry, drama/screenwriting, fiction, and non-fiction. Models of each will be studied, and students will write and share pieces in each of these differing literary forms. Prerequisites: ENGL 204 or ENGL 208 or ENGL 209 or permission of the instructor.

**ENGL 471. CREATIVE WRITING: FICTION (3)**

A writing course focusing on fiction. Instruction will be given on the techniques and terminology of fiction writing. Models will be studied, and students will read and respond to each other's writing, using a workshop format. Prerequisite: ENGL 371 or permission of the instructor.

**ENGL 472. CREATIVE WRITING: POETRY (3)**

A writing course focusing on poetry. Instruction will be given on the techniques and terminology of poetry. Models will be studied, and students will read and respond to each other's writing, using a workshop format. Prerequisite: ENGL 371 or permission of the instructor.

**ENGL 473. CREATIVE WRITING: NONFICTION (3)**

A writing course focusing on creative nonfiction. Instruction will be given on the techniques and terminology of creative nonfiction writing. Models will be studied, and students will read and respond to each other's writing, using a workshop format. Prerequisite: ENGL 371 or permission of the instructor.

**ENGL 474. CREATIVE WRITING: DRAMA (3)**

A writing course focusing on drama/screenwriting. Instruction will be given on the techniques and terminology of drama/screenwriting. Models will be studied, and students will read and respond to each other's writing, using a workshop format. Prerequisite: ENGL 371 or permission of the instructor.

**ENGL 475. ADVANCED CREATIVE WRITING (3)**

An advanced writing course focusing on one of four genres (fiction, poetry, nonfiction, or drama/screenwriting). Instruction will be given on the techniques of writing. The workshop course will focus on preparing students to send work to national literary magazines. Prerequisite: ENGL 371 or permission of the instructor.

**ENVIRONMENTAL STUDIES****ENVS 300. INTEGRATED PEST MANAGEMENT AND LAB (4)**

Pest management is an important aspect of managing our natural resources, from agriculture to forests to wilderness areas. Some pest reduction tactics, like chemical pesticides, are highly effective in the short term but can cause environmental degradation via water and soil contamination or bioaccumulation. This course first examines the pest concept and major factors causing invertebrate organisms to become pests and then explores a range of tactics that may be integrated to manage pests while minimizing environmental degradation. Strategies include biological control, trap crops, cultural methods, pheromone lures, mating disruption, and chemical pesticides. Laboratory exercises will provide hands-on experience with the management of common invertebrate pests. Prerequisites: ENVS 201, 202, and either BIOL or permission of the instructor.



#### **ENVS 340. SUSTAINABLE AGRICULTURE AND LAB (4)**

Factors such as decreasing soil fertility, soil erosion, pesticide resistance, increasing input costs, ground water contamination, and demand for chemical-free food and livestock have convinced the agriculture community of the need for new approaches to food and fiber production. This course examines basic design principles and examples of environmentally and economically sustainable agriculture systems. The course examines the application of ecological principles to sustainable management practices that biologically improve the fertility, organic matter content, and soil structure while minimizing or even eliminating the need for chemical applications for control of pathogens, insect pests, and weeds. Prerequisites: ENVS 201 and 202.

#### **ENVS 341. SUSTAINABLE ENERGY AND LAB (4)**

This course introduces concepts of energy conservation and management and explores different renewable energy sources that are considered environmentally sustainable. Problems associated with nonrenewable energy use will be examine, and the range of sustainable alternatives will be explored. The fundamentals of passive solar collection, photovoltaics, wind, hydro, geothermal, and biomass will be covered. Economic and social implications for adopting each technology also will be considered. Prerequisites: ENVS 201, 202, and either GSCI 103 or PHYS 201 and 201L.

#### **ENVS 345. SUSTAINABLE DEVELOPMENT (3)**

This course will explore the concept of developing in an economically viable and sustainable manner that conserves environmental and cultural resources. Concepts such as the design of net-energy-producer homes, incorporation of renewable and energy efficient technologies, use of nontoxic or responsibly harvested “green” building materials, farmland preservation, incorporation of common wildlife space, and the nature of community design will be explored. Prerequisites: ENVS 201, 202, and either ENVS 341 or permission of the instructor.

#### **ENVS 362. SOIL SCIENCE AND LAB (4)**

This course examines physical structure and composition of soil in conjunction with the dynamics of organisms including the microbes and macrobiota within the physical and chemical environment of the soil. The soil classification as well as the role of soils and their biota in food webs and ecosystem processes will be emphasized. The laboratory will provide field and lab techniques used in the study of soil ecology. Prerequisites: BIOL 101 and 102 or BIOL 208 and 209 or equivalent; ENVS 201 and 202, GSCI 301; CHEM 120 or 207.

#### **FRENCH**

##### **FREN 367. FRANCOPHONE FILM STUDIES (3)**

An in-depth critical study of selected films. Course content will be determined by the individual instructor, but can cover any aspect of Francophone cinema, i.e., films of any time period, any genre, or any Francophone country. The language of instruction is French. Prerequisite: FREN 101, FREN 102, FREN 203, and FREN 204.

#### **GRAPHIC DESIGN**

##### **GRDS 200. GRAPHIC DESIGN I (3)**

Graphic Design I provides the student with a comprehensive overview of the design field including its history, principles, techniques, and practice. The essential components of the graphic design process are discussed. Projects and exercises encourage the exploration of a wide range of design applications including symbols, logos and identity, typography, and layout. Professional considerations are introduced such as portfolio development, self-promotion, and employment opportunities.

##### **GRDS 300. TYPOGRAPHY I (3)**

This course introduces students to the history and technology of one of the most integral components of visual communication—letterforms. Topics covered include typographic vocabulary.

terminology, classification, measurement, syntax, communication, and legibility. The expressive potential of letterforms and words is explored, as well as the relationship between type and image. Students develop an appreciation of the subtleties of typographic form through projects that incorporate both traditional and digital methods and techniques. Prerequisites: GRDS 200; corequisite: GRDS 320.

### **GRDS 360. DIGITAL STUDIO II (3)**

Digital Studio II introduces students to using the Macintosh computer as a tool for design, page layout, and production. Grid, document structure, pagination, and basic typographic hierarchy are explored, as well as the use of master pages, style sheets, libraries, layers, and color models in the construction of both single- and multiple-page documents. Technical considerations in the design and production process are presented, such as working with image files and preparing documents for successful output to print and PDF. Through lecture and critique, students develop an awareness of how design decisions impact the cost of production and distribution. Prerequisites: GRDS 300, GRDS 320; corequisite: GRDS 340.

### **GRDS 400. SPECIAL TOPICS IN GRAPHIC DESIGN (3-6)**

This course provides the student an opportunity to explore in-depth a specialization in the graphic design industry. Topics may include identity design and guidelines, branding and packaging design, publication design, environmental design, information architecture and systems design, and signage and wayfinding design. Other topics address critical thinking in graphic design and may include such issues as design and social responsibility, design for democracy, and design for global audiences, among others. Prerequisites: 18 credits in graphic design.

### **GRDS 430. ADVANCED DESIGN (3)**

Advanced Design offers students an overview of the many specializations in the diverse field of graphic design. Projects demand extensive research, analysis, and creative conceptualization. Students are expected to generate sophisticated design solutions that reflect a high level of expertise and achievement. Critical thinking in graphic design is stressed with readings and discussions on contemporary issues in the profession, both domestic and international. Prerequisite: GRDS 420.

### **GRDS 450. ANNUAL REPORT STUDIO (3-6)**

This course challenges a student team to undertake the design, photography, and production of a highly visible publication for the National Capital Region of the U.S. National Park Service. Collaborating with a client communications director, design students learn to generate imaginative creative concepts from editorial content and to communicate those concepts through effective art direction and design. Student photographers travel extensively throughout the greater Washington, D.C., area to capture images that satisfy specific content, format, and technical requirements. Client contact, project management, team-building, and presentation skills are sharpened in this unique real world experience. Annual Report Studio is offered each semester; conceptual design and photography are generated in the fall and production design and imaging in the spring. A two-semester commitment is expected of students to ensure continuity in the creation of this critical document. Prerequisites: 18 credits in graphic design or photography; a minimum 3.0 GPA; interview and portfolio review; and permission of instructor. Must be taken twice in consecutive semesters.

### **GRDS 460. INTERNSHIP IN GRAPHIC DESIGN (3-6)**

Internships offer students an opportunity to expand their knowledge and understanding of the field by working in a professional design setting. Client-oriented projects expose the student to multiple aspects of the professional design process: client meetings, cost estimates, presentation, design, and production. To complete this course, 200 hours of documented work (about 12 hours a week per semester) is required. Summer internships are strongly encouraged. Prerequisites: 24 credits in graphic design and minimum 3.0 GPA.



## HEALTH EDUCATION

### HLTH 310. HEALTH AND PHYSICAL EDUCATION FOR ELEMENTARY EDUCATORS (4)

This course is designed to develop the knowledge and skills of elementary educators to provide instruction in health and physical education. The course will focus on instruction of fundamental movement patterns, skill development for games and activities, promotion of lifetime enjoyment of physical activity, health promotion and disease prevention, health literacy, the influence of culture and media, communication skills, and goal setting and decision making. The course includes an elementary school practicum and will provide opportunities to plan and demonstrate various instructional techniques, integrate health and physical education across the curriculum, and demonstrate alternative methods of content delivery. Students will develop technology skills to deliver health education and physical education instruction and reinforce classroom experience and learning.

## HISTORY

### HIST 301. AMERICAN COLONIAL HISTORY (3)

This course examines the development of colonies in America, 1492-1763. Instead of seeing the history of the mainland North American colonies as the rise of the United States, the course places the colonies in an Atlantic context. This multi-imperial, multi-ethnic, multicultural approach will focus on political, cultural, social, and economic interactions among Indians, African, and Europeans in the New World.

### HIST 302. ERA OF THE AMERICAN REVOLUTION, 1763-1815 (3)

An intensive study of the 1763-1815 period, this course focuses on the causes, nature, and consequences of the American Revolution and the formation of the United States through the War of 1812. It examines how all peoples living in the mainland colonies affected the creation and security of the new nation and how that new regime in turn shaped their lives.

### HIST 303. THE JACKSONIAN ERA, 1816-1850 (3)

Covering the period from the Era of Good Feelings to the aftermath of the Mexican War, this course encompasses the rise of early nationalism, territorial expansion, the westward movement, the development of the market economy, the rise of the common man, and the manifestation of reform. This complex era, epitomized by Andrew Jackson's career, saw the rise of disparate economic systems and political goals among the nation's geographical sections.

## MATHEMATICS

### MATH 100. FRESHMAN SEMINAR (1)

This course provides beginning freshman students with information and tools to prepare them for a successful life as a student. This course is aimed at developing the cognitive skills required in computer, mathematics, and engineering courses. The activities in this course are designed to introduce the student to an academic support system through which freshman students can explore various concentrations in computer science, mathematics, and engineering and learn academic success strategies including developing a support network. One pass/fail credit.

### MATH 101. FUNDAMENTALS OF MATHEMATICS (3)

This course is an extensive review of the properties of integers, fractions, decimals, and rational numbers. Topics will include the Euclidean algorithm, polynomials and operations on polynomials, irreducible versus reducible polynomials factoring, Bézout's theorem, the division algorithm, long division, geometric sequence as an application, simplifying expressions involving polynomials, revisiting the basic algorithms of arithmetic using the concept of polynomials, different number bases and operations, solving first and second degree equations, relationship between factoring and finding roots, solving first and second degree polynomial inequalities, graphic representation of inequalities and equations, interval notation including unions of intervals, exponential nota-



tion, laws of exponents, working with exponents and simplifying expressions using exponents, and solving systems of equations in two unknowns.

### **MATH 101A. FUNDAMENTAL MATHEMATICS I (2)**

An extensive review of the properties of integers; working with fractions, decimals, and rational numbers; the Euclidean algorithm; polynomials and operations on polynomials; irreducible versus reducible polynomials; factoring; Bézout's theorem; the division algorithm and long division; geometric sequence as an application; simplifying expressions involving polynomials; revisiting the basic algorithms of arithmetic using the concept of polynomials; and different number bases and operations in them as an extension. The course ends with an exit exam. This course, together with MATH 101B, is equivalent to MATH 101 in general studies. Placement in this sequence of courses is determined by SAT or ACT score as mandated by state policy.

### **MATH 101B. FUNDAMENTAL MATHEMATICS II (2)**

This course includes solving first and second degree equations; the relationship between factoring and finding roots; solving first and second degree polynomial inequalities; graphic representation of inequalities and equations; interval notation including unions of intervals; exponential notation; laws of exponents; working with exponents; simplifying expressions using exponents; and solving systems of equations in two unknowns. The course ends with an exit exam. This course, together with MATH 101A, is equivalent to MATH 101 in general studies. Prerequisite: MATH 101A.

### **MATH 102. MATH FOR ELEMENTARY TEACHERS (3)**

A study of the structure of mathematical systems and operations defined on these systems; historical development of numbers and number systems including contributions from diverse cultures; and elementary probability, statistics, and data analysis. Emphasis on building conceptual understanding and developing problem-solving skills. Appropriate use of technology will be incorporated throughout the course.

### **MATH 200. GEOMETRY AND MEASUREMENT (3)**

This course explores the fundamental ideas of planar and spatial geometry. Content includes the analysis and classification of geometric figures; the study of geometry transformations; the concepts of tessellation, symmetry, congruence, and similarity; connection of geometry to other mathematical topics and to nature and art; and an overview of measurement. The course also includes an introduction to the use of computers in the teaching and learning of informal geometry. Prerequisites: MATH 108 and one year of high school geometry or consent of the instructor. Required for all mathematics teaching programs.

### **MATH 205. CALCULUS WITH APPLICATIONS (4)**

Topics in differential and integral calculus, with stress on their applications in business, biology, social, and behavioral sciences. Prerequisite: MATH 108 or satisfactory math placement test score.

### **MATH 207. CALCULUS I (4)**

Fundamental concepts of calculus, using analytic geometry. After preliminaries about the real number system, intervals, and functions, properties of limits are carefully stated. These are used to develop standard differentiation formulas. Applications of the derivative (as a rate of change) are stressed in a wide variety of problems. Introduction to integration via anti-differentiation and area and the fundamental theorem. Applications of the integral (volumes, arc length, surface area, etc.) Prerequisite: MATH 106 and MATH 108 or satisfactory math placement score.

### **MATH 300. MATH METHODS FOR ELEMENTARY TEACHERS (3)**

An in-depth study of the elementary curriculum content examining methods, problems, and techniques involved in mathematics instruction. Prerequisites: MATH 102 and MATH 200.

**MATH 433. APPLIED MATHEMATICS (3)**

This course is a brief introduction to methods of solving PDE using Green's Functions, Fourier Series, etc., and advanced topics from Calculus III. Prerequisites: MATH 309 and MATH 310.

**MATH 435. PRAXIS II MATH PREPARATION (2)**

Designed for the first-time test-taker, but is also open to those who are planning to take a retest. The course will cover the contents of the test, address specific test-taking strategies, and provide a review of essential undergraduate mathematics concepts. The course will include several practice tests that will be scored and returned. Senior standing or permission of the instructor. Pass/fail.

**MUSIC**

**MUSC 102. FUNDAMENTALS OF MUSIC EDUCATION (2)**

Study of basic fundamentals of music, especially melody and rhythm, and including harmony, texture, form, dynamics, timbre (particularly the classroom instrumentarium), and listening, studied through active participation, improvisations, composition, reading, writing, listening, movement, and speech with an emphasis on elementary school music literature (particularly folk song) through the Kodály and Orff Schulwerk approaches. Two hours of class and one hour of lab per week.

**MUSC 138. BASIC KEYBOARD SKILLS (1)**

This course will focus on keyboard skills for students with little or no keyboard experience. Students will work on mastering the basic rudiments of reading music, keyboard technique, sight reading, and harmonization, as well as learn to perform early-level solo and ensemble literature. In addition to one hour of class instruction, students will be required to attend one hour of supervised laboratory time. Upon successful completion of this course with a grade of C or above, students may enroll in MUSC 140 Class Piano I.

**MUSC 140. CLASS PIANO I (1)**

The Class Piano sequence (MUSC 138, 140, 141) is designed to help students acquire skills that will be essential in their careers as classroom or private music teachers. These skills include basic keyboard technique; harmonization of melodies, scales and arpeggios; solo and ensemble literature; and accompanying. In addition to one hour of class instruction, students will be required to attend one hour of supervised laboratory time. Prerequisites: Completion of MUSC 138 with a grade of C or above (student must be able to read music and have some keyboard experience) or by permission of the instructor through audition.

**MUSC 141. CLASS PIANO II (1)**

This class allows the student to refine skills acquired in MUSC 140. Special attention will be given to the requirements for the piano proficiency exam and to prepare the song accompaniments most frequently used in the K-12 music curriculum. Students will build upon their harmonization skills by employing secondary chords in melodic harmonizations and improvisations. In addition to one hour of class instruction, students will be required to attend one hour of supervised laboratory time. Prerequisite: MUSC 140 or by permission of the instructor through audition.

**MUSC 226. CLASSROOM MUSIC EDUCATION (2)**

Methods and materials of teaching music and of integrating music in the elementary classroom. Emphasized are teaching rhythmic poetry and elementary songs (particularly folk songs), beginning music literacy, the classroom instrumentarium, and movement and folk dance, especially through Kodály and Orff Schulwerk approaches. Prerequisite: MUSC 102.

**MUSC 247. DICTION II (3)**

This course will continue the exploration of the International Phonetic Alphabet and its application to foreign language diction for musicians. French, German, and Italian diction will be studied with

an emphasis on successful understanding of pronunciation in a performance setting. Prerequisite: MUSC 237 or permission of the instructor.

## **NURSING**

### **NURS 231. INTRODUCTION TO NURSING (2)**

This is the survey course for all junior and senior level nursing classes. It is designed to provide an overview of the nursing profession. The Shepherd University B.S.N. mission, philosophy, conceptual framework, and expected outcomes are presented. All concepts, subconcepts, and curricular threads are introduced. Prerequisite: Sophomore standing and nursing program pre-acceptance. This course must be taken at Shepherd University.

### **NURS 311. NURSING I INTRODUCTION TO HEALTH CARE (3)**

The course is designed as the basis upon which all other nursing courses develop and expand. The student is introduced to the nursing process and skills of critical thinking, decision making, and ethics/law in order to understand the health care needs of people of diverse cultures across the life span. Data collection is introduced via normal system approach. Prerequisite: NURS 231. Prerequisite or corequisite: NURS 313, 315, 317.

### **NURS 313. NURSING I-A HEALTH ASSESSMENT (3)**

The course is basic to all nursing clinicals through the program. Complete instruction of health assessment using the system approach is given. The concept of nursing process introduced in NURS 231 will be examined extensively as the method by which professional nurses assist persons to achieve optimum level of health. The student will be provided opportunities to exercise critical thinking, decision making, and ethical judgment through case studies, simulations/role play, and patient interviews. Prerequisite: NURS 231. Prerequisite or corequisite: NURS 311, 315, 317; R.N.s with permission of department chair.

### **NURS 317. ESSENTIALS IN CLINICAL PHARMACOLOGY/PATHOPHYSIOLOGY IN NURSING (2)**

The first course in a two-course sequence that presents clinical pharmacology and pathophysiology emphasizing rationales and safe drug administration, relationships of drug mechanisms to disease processes, effects of lifespan on drug therapy, application of nursing research to pharmacologic principles. Alterations in biologic processes that affect the body's homeostasis and various dysfunctions of biologic systems are examined. The rationale for diagnosis and therapeutic interventions is introduced. Prerequisite: Nursing student status; NURS 231; or permission of department chair.

### **NURS 324. NURSING RESEARCH (2)**

Course is designed to introduce concepts of nursing research. The focus is on the professional nurse as a consumer of research in health and nursing. The student further develops skills in critical thinking and ethical decision making in the development of a nursing research project using the research process. Elementary concepts of statistics and the use of computer technology are introduced related to nursing research. Prerequisite or corequisite: NURS 318 or permission of department chair.

### **NURS 326. ESSENTIALS IN CLINICAL PHARMACOLOGY/PATHOPHYSIOLOGY IN NURSING (2)**

The second course in a two-course sequence that presents clinical pharmacology and pathophysiology emphasizing rationales and safe drug administration, relationships of drug mechanisms to disease processes, effects of lifespan on drug therapy, application of nursing research to pharmacologic principles. Alterations in biologic processes that affect the body's homeostasis and various dysfunctions of biologic systems are examined. The rationale for diagnosis and therapeutic interventions is introduced. Prerequisite: NURS 317.



**NURS 410. ADVANCED NURSING CONCEPTS AND PRACTICE (6)**

This course will lay the foundation for the R.N. to practice with a bachelor of science in nursing. R.N. students will establish professional and collegial relationships with nursing faculty, other R.N. students, and variety of professional nurses in health care agencies. An emphasis will be placed on advancing nursing practice through a combination of independent study, seminar, and clinical experiences. Prerequisite: NURS 324, 313, and permission of instructor.

**NURS 419. NURSING VI HEALTH CARE OF WOMEN (3)**

Course is designed to examine the biophysical and psychosocial aspects of human reproductive function, childbearing, sexuality, illness care, and maintenance for the woman through the life span. This course builds upon knowledge gained in NURS 316 Health Care of the Adult, NURS 415 Health Care of Children and Families, and concurrent course, NURS 411 Community Health Care. The student will apply the nursing process utilizing critical thinking skills for the diverse health care alterations in the female population. Corequisite: NURS 421. Prerequisite: NURS 316, 318.

**NURS 422. NURSING VII HEALTH CARE OF THE ADULT: GERONTOLOGY FOCUS (3)**

Course is designed to examine illness care, rehabilitation care, health counseling, and education for the gerontological client and family. This course builds upon knowledge gained in NURS 316 (Health Care of the Adult—medical-surgical focus). The diverse social, cultural, economic, and political components of older populations will be explored. Corequisite: NURS 424. Prerequisite: NURS 316, 318, 324.

**NURS 426. NURSING VIII HEALTH CARE OF THE ADULT WITH COMPLEX PROBLEMS (3)**

This final course of adult health nursing focuses on the therapeutic nursing interventions used to restore health to adults who are experiencing acute and/or complex health problems. Analyzes deviations from health with attention to the implications for the individual as well as the family in coping with health problems. Analyzes the client's health care needs and the resources to meet them in collaboration with the client and health providers. Incorporates ethical and legal issues involving clients with complex needs. Prerequisite or corequisite: NURS 415, 417. Corequisite: NURS 428. Prerequisite: NURS 316, 318, 324.

**NURS 428. NURSING VIII CLINICAL COMPONENT (2)**

This is the third and final medical-surgical course of adult health care nursing. The focus is planning and providing care for persons with complex health needs. Complex and multisystem needs are explored in-depth. Selected clinical experiences in specialty areas ICU, CCU, ER, open heart surgery, and cardiac cath lab are arranged. Corequisite: NURS 426.

**NURS 434. MANAGEMENT AND ISSUES IN HEALTH CARE (3)**

This course is designed to examine current health care issues influencing professional nursing practice. The student is introduced to management principles and leadership roles and responsibilities within different health care organizations and settings. Prerequisites: NURS 316, 318, 324.

**POLITICAL SCIENCE**

**PSCI 307. THE U.S. PRESIDENCY (3)**

Study of the U.S. presidency, focusing on constitutional powers, the processes of the presidency, and presidential behavior.

**PSCI 312. PUBLIC OPINION AND POLITICAL BEHAVIOR (3)**

An exploration of the role of public opinion, or the public will, in representative democracy. Topics include opinion formation and measurement, political knowledge, partisanship and ideology, attitude stability and change, the impact of public opinion on political behavior, and the relationship between elite and mass opinion. Particular emphasis is placed on an evaluation of the extent to which the public will is translated into governmental action within the political system.

**PSCI 329. COMPARATIVE POLITICS OF THE MIDDLE EAST (3)**

Examines the politics of the Middle East from a historical perspective. Provides a basic understanding of the political forces, figures, and events that have shaped the region throughout its long history.

**PSCI 402. JURISPRUDENCE: THE PHILOSOPHY OF LAW (3)**

A consideration of various philosophical problems and moral dilemmas in the law. Includes study of different legal theories and traditions.

**PSCI 405. INTERNATIONAL POLITICAL ECONOMY (3)**

A theory-intensive study of today's increasingly interdependent and politicized global economy. Introduces students to the main institutions and actors in the international system.

**PSCI 408. GLOBAL PROBLEMS (3)**

A general survey of the major political problems confronting the world today. Explores the nature and complexities of the problems and how to address them.

**PSYCHOLOGY****PSYC 250. STATISTICS FOR THE SOCIAL SCIENCES (4)**

Descriptive and inferential statistics in the design, analysis, and interpretation of social science research with practical application using computers in the laboratory. The statistical methods to be covered include frequency distributions and graphing, measures of central tendency, measures of variability and correlations, t-tests, analysis of variance, and several distribution-free tests. Prerequisites: MATH 154 and the introductory course in the major or permission of instructor.

**PSYC 300. INFANT/CHILD DEVELOPMENT (3)**

This course is designed to help students understand their own developmental past, present, and future which they may then use as parents or in their career paths involving infants and children. This course examines topics of classic and contemporary developmental theories, research, and concepts as they apply to the developing person from conception through childhood. These topics will focus on the biological, cognitive, and psychosocial perspectives of human development. Prerequisite: PSYC 203.

**PSYC 311. INTRODUCTION TO CLINICAL PSYCHOLOGY (3)**

An introduction to the methods, techniques, and approaches to an understanding of personality and the treatment of emotional disturbances. Prerequisite: PSYC 203.

**PSYC 314. FIELD EXPERIENCE IN ART THERAPY (3)**

Same course description as PSYC 312 Practicum in Psychology. This course shall function separately in title only from that of PSYC 312 Practicum in Psychology. In order to meet undergraduate art therapy recommendations of the American Art Therapy Association, it is necessary for the practicum to be identified as Field Experience in Art Therapy. The course will be offered at the same time, etc., as PSYC 312 (when demanded) and will meet all the requirements and expectations of PSYC 312. Prerequisite: Permission of the faculty.

**PSYC 316. ART THERAPY (3)**

An introduction to therapeutic techniques using artistic productions as an aid to psychotherapy. The course involves an analysis of approaches with specific clinical populations; e.g., juvenile delinquents, geriatric clients, etc. This course also includes a historical and theoretical appraisal of the use of art therapy in both clinical practice and research. Prerequisite: PSYC 203 or permission of the instructor.

**PSYC 321. INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY (3)**

The application of psychological theory and methodology to individuals and groups in organizational settings. Topics include managerial appraisal and consultation, employee training and development, personnel research, improving employee relations, and designing optimal work environments. Prerequisite: PSYC 203 or BADM 310.

**PSYC 324. CONVERSATIONAL SIGN LANGUAGE II (3)**

This course involves advanced skill acquisition of the American Sign Language (ASL), both in the signing and receptive modes. The culture of deaf people is also further explored along with the literature on deafness and appraisal of state legislative activity favoring ASL as fulfilling the foreign language requirement for high school graduation. Prerequisite: PSYC 323.

**PSYC 325. HEALTH PSYCHOLOGY (3)**

This course explores contemporary trends and techniques in the field of health psychology. Included are such topics as psychological intervention in physical illness, adherence, activity level, obesity, smoking prevention, acute and chronic stress, stress appraisal, delay in seeking treatment, immunological competence, interventions with children, lifestyle change programs, holistic psychology, and the health care system. Prerequisite: PSYC 203.

**PSYC 326. PSYCHOLOGY OF SUBSTANCE ABUSE (3)**

The focus of this course is to provide an in-depth understanding of the nature of addiction to various psychoactive substances and its treatment. This includes a study of the psychological and social factors associated with substance abuse and theories of etiology, along with an understanding of the scope of services and critical issues in services for persons with psychoactive substance use disorders. Prerequisite: PSYC 203.

**PSYC 330. FAMILY THERAPY (3)**

The focus of this course is on the major schools of family therapy. The family is viewed as a unit of treatment and as a multigenerational emotional system. Case studies are emphasized. Prerequisite: PSYC 203 or permission of the instructor.

**PSYC 331. COUNSELING CHILDREN (3)**

This course focuses on the main components of an elementary school counseling program: counseling (both individual and small group), class guidance, and consultation. Included is information about how to use a variety of counseling techniques, an overview of relevant counseling approaches, childhood social-emotional developmental issues and situational concerns, evaluation and treatment planning, and legal and ethical issues specific to the elementary counseling setting. Prerequisite: PSYC 311 or permission of the instructor.

**PSYC 400. RESEARCH METHODS IN PSYCHOLOGY (4)**

As the first course in a series of two, this class is designed to prepare students for the senior thesis capstone course. Students will gain an understanding of how to approach research questions in a scientific manner, which reduces as many alternative interpretations and potential sources of bias as is possible. Students will see that each research design is valuable for different types of questions and that the replication of findings using different methods, different subjects, at different times, and in different places is the key to giving theories strength and credibility. Through the study of the research methods that psychologists use, students will become more educated consumers of research findings appearing in the daily media. Prerequisites: PSYC 203 and PSYC 250 (or MATH 314 or BADM 224).

**PSYC 430. HUMANISTIC PSYCHOLOGY (3)**

An exploration of the field of humanistic psychology. The theoretical orientations of selected



humanistic psychologists (e.g. Carl Rogers, Leo Buscaglia, Viktor Frankl, Harold Greenwald, and Abraham Maslow) are covered in depth. Prerequisite: PSYC 203.

## SPANISH

### SPAN 301. ADVANCED CONVERSATION AND COMPOSITION I (3)

A course designed to help students sharpen their oral and writing skills through the use of guided conversation and composition. Topics for discussion include the family and cultural differences. Prerequisite: SPAN 204 or permission of the instructor.

### SPAN 302. ADVANCED CONVERSATION AND COMPOSITION II (3)

A continuation of SPAN 301, this course is designed to help students continue to sharpen their oral and writing skills through the use of guided conversation and composition. Topics for discussion include the family and cultural differences. Prerequisite: SPAN 204 or permission of the instructor.

### SPAN 306. PENINSULAR CULTURE AND CIVILIZATION (3)

Based on current documentation (literature and film) of contemporary society in Spain, the course strives to give students an understanding of these cultures from a political, historical, social, and literary perspective. This is also an important course for business majors interested in a minor in Spanish to enhance their employment prospects. Prerequisite: SPAN 301/302 or permission of the instructor.

### SPAN 307. LATIN AMERICAN CULTURE AND CIVILIZATION (3)

Based on current documentation (literature and film) of contemporary society in Latin America, the course strives to give students an understanding of these cultures from a political, historical, social, and literary perspective. This is also an important course for business majors interested in a minor in Spanish to enhance their employment prospects. Prerequisite: SPAN 301/302 or permission of the instructor.

### SPAN 367. SPANISH AND LATIN AMERICAN FILM STUDIES (3)

An in-depth critical study of selected films. Course content will be determined by the individual instructor, but can cover any aspect of Spanish and Latin American cinema, i.e., films of any time period, any genre, or any Spanish-speaking country. The language of instruction is Spanish. Prerequisites: SPAN 101, SPAN 102, SPAN 203, and SPAN 204.

### SPAN 400. SURVEY IN SPANISH I: HISPANIC SHORT STORY (3)

This course is a study of the short story (cuento) in Spain and Latin America from its beginnings to the contemporary period with representative readings. Prerequisite: SPAN 310 or 311 or 312 or 313 or permission of the instructor.

### SPAN 401. SURVEY IN SPANISH II: HISPANIC DRAMA (3)

This course is a study of drama in Spain and Latin America from its beginnings to the contemporary period with representative readings. Prerequisite: SPAN 310 or 311 or 312 or 313 or permission of the instructor.

### SPAN 402. SURVEY IN SPANISH III: HISPANIC NOVEL (3)

This course is a study of the novel in Spain and Latin America from its beginnings to the contemporary period with representative readings. Prerequisite: SPAN 310 or 311 or 312 or 313 or permission of the instructor.

### SPAN 403. SURVEY IN SPANISH IV: HISPANIC POETRY (3)

This course is a study of poetry in Spain and Latin America from its beginnings to the contemporary

period with representative readings. Prerequisite: SPAN 310 or 311 or 312 or 313 or permission of the instructor.

**SPAN 404. SPANISH LINGUISTICS (3)**

This course provides an in-depth examination of Spanish linguistics as applied to the Spanish language with a concentration in phonetics, morphology, syntaxes, and semantics. Prerequisite: Permission of the instructor.

**SPAN 405. SEMINAR IN LITERATURE I (3)**

A seminar course focusing on a literary genre, movement, period, or figure chosen by the instructor and approved by the coordinator. The student is expected to attend regular meetings of the seminar, participate in open discussions, and present a series of short written and oral reports related to the topic chosen for study. The student is also responsible for submitting a major documented paper which individually investigates an aspect of the topics of the course as a whole. Prerequisites: SPAN 310 or 311 or 312 or 313 and permission of the instructor.

**SPAN 406. SEMINAR IN LITERATURE II (3)**

A seminar course with the same format and requirements as SPAN 405 but concentrating on a different genre, movement, period, or figure chosen by the instructor and approved by the coordinator. Prerequisites: SPAN 310 or 311 or 312 or 313 and permission of the instructor.

**SPAN 407. SEMINAR IN LITERATURE III (3)**

A seminar course with the same format and requirements as SPAN 405 but focusing on a different genre, movement, period, or figure chosen by the instructor and approved by the coordinator. Prerequisites: SPAN 310 or 311 or 312 or 313 and permission of the instructor.

**SPAN 411. STUDY ABROAD (3)**

Shepherd University will offer a series of study abroad opportunities during the summer. Currently, students have the opportunity to spend a month in Lima, Perú, at the Universidad de San Marcos perfecting their language skills. They will have to produce a paper upon their return in order to get credit for this course. Prerequisites: Permission of the instructor.

**SPAN 485. CAPSTONE PRESENTATION (1)**

Under the supervision of a faculty mentor of the student's choice, the student will propose a project, have the proposal approved by the mentor, and execute the project. Students should concentrate on experiences they have had at Shepherd that would be useful in graduate school or career choices. Projects may include but are not limited to preparation and presentation of a conference paper; development of a substantial Web site; creation of a special workshop for other students in Spanish; and participation in a dramatic performance. Students in SPAN 485 will also develop a portfolio of written work submitted in the major and take a major field achievement test. Prerequisite: Permission of the department chair and of the instructor.

**SPAN 486. SPANISH EDUCATION CAPSTONE (1)**

This Spanish education capstone presentation serves as a complementary component for the student teaching experience. Working under the supervision of the Spanish specialization coordinator and drawing from experiences encountered in the student teaching assignment or other departmental service or activity related to the teaching profession, the apprentice teacher will participate in the end-of-semester Department of Modern Languages capstone presentations, sharing a teaching unit, a lesson series, a project initiated during the field experience, or a project or activity completed in the Department of Modern Languages that relates to the teaching profession. Prerequisite: Permission of the instructor.

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